Social Anxiety And Quality Of Life In Adolescents: Cognitive Aspect, Social Interaction And Cultural Tendency

Saleh Alkhathami

SOCIAL ANXIETY AND QUALITY OF LIFE IN ADOLESCENTS: COGNITIVE ASPECT, SOCIAL INTERACTION AND CULTURAL TENDENCY

Saleh Alkhathami

Ph.D.

University of Bedfordshire

2015

Social anxiety and quality of life in adolescents: Cognitive aspect, social interaction and cultural tendency

By

Saleh Alkhathami

A thesis submitted to the University of Bedfordshire, in partial fulfilment of the requirements for the degree of Doctor of Philosophy

2015

Social anxiety and quality of life in adolescents: Cognitive aspect, social interaction and cultural tendency

Saleh Alkhathami

Abstract

Aim: In recent years, research has concluded that social anxiety plays a key role in quality of life. The overall aim of this research was to evaluate social anxiety in adolescents with respect to determining how social anxiety affects quality of life.

Method: This study was a cross-sectional study. A pilot study was conducted to cross-culturally adapt all scales by the recommended translated and back-translated method. The correlations of socio-demographic parameters with the SAS-A scores were examined. Data from a sample of 564 students (273 boys 48.4%, 291 girls 51.6%) were analysed. Adolescents from Saudi Arabia and the United Kingdom were screened and compared. Confirmatory factor analysis was utilised to build the proposed model based on prior research and theoretical findings.

Finding: No significant sex difference in the SAS-A total score, fear of negative evaluation and social avoidance were found. Comparing the boys and girls on SPIN scores, Fear, Avoidance and Authority Problems, the results showed that boys reported higher in SPIN total, fear and avoidance (except authority problem subscale score) than did girls. SAS-A scores were higher in those with a low socio-economic level. Moreover, social anxiety symptoms among Saudi adolescents were more severe in boys. Results showed that adolescents without social anxiety scored higher on quality of life and its subscales than adolescents with social anxiety as measured by ASA-A. No significant difference was found in psychical health. Adolescents without social anxiety scored higher on quality of life and its subscales than adolescents with social anxiety as

measured by SIAS. Adolescents without social anxiety scored on Positive Individualism more than adolescents with social anxiety. No significant difference was found in Positive Relatedness.

In the cross-cultural study, the results showed no significant difference on SIAS scores for Saudi adolescents and British adolescents. However, a marginally significant differences was found on BAI scores, where Saudi adolescents reported higher level of anxiety than British adolescents. The British sample reported higher on the fear of negative evaluation than the Saudi sample.

Structural equation modelling (SEM) was utilised to test hypotheses on the links between scores on the study scales. The findings indicate that the overall fit of the SAS-A model was acceptable. Direct effects between the study variables and significant positive correlation between cognitive factors and social anxiety were found. Mediation effects of SAS-A and SPIN were investigated by reporting direct effects, indirect effects and total effects. Results indicte that social anxiety significantly mediated the relationships between subjective anxiety, positive individualism, and cognitive and environmental health.

Conclusion: It is therefore imperative that socially anxious students be provided with appropriate consultations and treatment so that they can improve their quality of life through integrating better with social institutions. If untreated, the impairment caused by social phobia could lead to poor academic and professional outcomes, as well as poor psychosocial outcomes.

Dedication

This thesis is dedicated to my Parents for their patience, prayers and spiritual support over the years. It is also dedicated to my supportive wife, my lovely children, and my brothers and sisters for their continual love, support and encouragement during my journey to complete this thesis.

Table of Contents

List of Tables

List of Figures

Acknowledgements

All praise is due to Allah, the Great Almighty, the Lord of worlds, prayers and peace be upon Mohammed His servant and Messenger, All praise is to you, and we have no knowledge except what you taught us.

I would like to express my sincere recognition to my supervisor Dr Hossein Kaviani for making it possible that I could start a PhD study at the University of Bedfordshire. Dr Hossein has always been encouraging, supportive and enthusiastic about the project. Without his high quality and friendly supervision, this work would not have come to completion. He shared with me his great knowledge and offered a great deal of guidance which enabled me to complete my thesis. Sincere regards are also due to Dr Emma Short who provided efficient supervision and academic advice during my study.

I would also like to thank all of my collaborators, mentors and colleagues, particularly Dr Mohammad Alzahrani, the general supervisor for the Alamal Complex for Mental Health and Dr Abdullah Alkhathami, the general supervisor for the Primary and Community Mental Health Centre in Dammam, the Ministry of Health, the Ministry of Higher Education and the Saudi Cultural Bureau in London. I thank Dr Ali Tobeigi and Dr Peter Norrington for their assistance with my thesis. Their proofreading and editing greatly helped the readability of my work.

I am particularly grateful to all the participants, both patients and adolescents, for their support by filling out all the long questionnaires and giving me their trust, without whom this research would not have been possible.

I would like to express my gratitude to my family, my brothers and sisters and my elder brother Mohammed Alkhathami for their moral support and encouragement.

I dedicate this thesis to my parents to whom I would like to present my life in vast appreciation of what they have done for me and still do for me; you mean the world to me.

Finally, a very special acknowledgement belongs to my wife and my children for their encouragement, patience and emotional support during my study.

Declaration

I declare that this thesis is my own unaided work. It is being submitted in partial fulfilment of the degree of Doctor of Philosophy, at the University of Bedfordshire. It has not been submitted before for any degree or examination in any other University.

Name of the Student ***Signature***

Saleh Alkhathami *Saleh*

List of Abbreviations

Symbol	Name of Item
ACMHD	Al-Amal Complex for Mental Health in Dammam
APA	American Psychiatric Association
BAI	Beck Anxiety Inventory
BFNE	Brief version of the Fear of Negative Evaluation Scale
BPS	British Psychological Society
CBT	Cognitive Behavioural Therapy
CFA	Confirmatory Factor Analysis
CFI	Comparative Fit Index
CMIN	Chi-square
CMIN/DF	Relative Chi-square
DSM	*Diagnostic and Statistical Manual of Mental Disorders*
EFA	Exploratory Factor Analysis
FNE	Fear of Negative Evaluation
ICD	*International Classification of Diseases*
NFI	Normed Fit Index
PCMHC	Primary and Community Mental Health Centre
QoL	Quality of Life
RMSEA	Root Mean Square Error of Approximation
SA	Social Anxiety
SAD	Social Anxiety Disorder
SAS-A	Social Anxiety Scale for Adolescents
SEM	Structural Equation Model
SI	Social Interaction
SIAS	Social Interaction Anxiety Scale
SP	Social Phobia
SPIN	Social Phobia Inventory
SR	Saudi Riyal
SRAQ	Self-Referent Adjective Questionnaire
TKS	Taijin Kyofusho
TLI	Tucker-Lewis Index
WHOQOL-BREF	World Health Organization Quality of Life

List of Publications and Conference papers

Working Papers

The impact of cognitive-behavioural treatment on quality of life in patients with social anxiety disorder: A study for culturally adapting psychotherapy.

Conference Paper

Alkhathami, S., Kaviani, H., & Short, E. (2013). Social anxiety and quality of life in adolescents. Conference paper presented at International Psychological Applications Conference and Trends, 26-28 April, 2013, Madrid.

Alkhathami, S., Kaviani, H., & Short, E. (2014). Social anxiety among adolescents and its relation to quality of life. Conference paper presented at The Annual International Conference on Cognitive-Social, and Behavioural Sciences icCSBs), 14-17 May 2014, Mersin, Turkey.

CHAPTER ONE

1 INTRODUCTION

1.1 Overview

This chapter introduces the study, highlighting the research problem, the objectives, scope and assumptions.

Social anxiety disorder is one of the diagnostic categories included in the American Psychiatric Association's (APA) *Diagnostic and Statistical Manual of Mental Disorders* (*DSM*). Social anxiety disorder has only been officially recognised since 1980, and the problem was not adequately explained until the *DSM-III-R* (APA, 1987). The *DSM-IV-TR* (APA, 2000) included social anxiety disorder (formerly, social phobia) in one of its diagnostic clusters, the first axis which incorporated clinical disorders, in contrast to the second axis which covered personality disorders and intellectual disabilities. No longer using the multi-axial system of diagnosis (formerly Axis I, Axis II, Axis III), the *DSM-5* (APA, 2013, formerly known as *DSM-V*) lists all diagnostic criteria and codes in Section II. Anxiety disorders are one of the 17 clusters listed in Section II. The concept of social anxiety, the *DSM* diagnostic criteria used in clinical diagnosis, as well as related clinical models are reviewed in this chapter.

The purpose of this introduction is to provide a general idea of the range of issues concerned with social anxiety, and in the process hypotheses for the study are developed. The literature on the cognitions and beliefs involved in social anxiety are reviewed, as well as that on experienced imagery. The literature comparing the phenomenology of social anxiety in two groups, namely children and adolescents, are reviewed. In addition, impairment and lifetime prevalence rates of social anxiety disorder are considered. In recent years, research has concluded that social anxiety plays a key role in quality of life. There is a high degree of comorbidity between social anxiety and other psychiatric disorders, including low self-esteem and clinical depression. Comorbidity in social anxiety is assessed to determine whether traditional models of social anxiety can explain its rates and implications.

1.2 Search Strategy

A full literature search was conducted to explore the various areas of research on social anxiety. The following databases were used: such as Medline, Pub Med, PsychoINFO and Web of Science. For the diagnostic criteria, the two major manuals for diagnosis were used: *DSM-IV-TR* (APA, 2000) and the *ICD-10* (WHO, 1992) referring respectively to the 'text revision' of the *Diagnostic and Statistical Manual of Mental Disorders* published by the American Psychiatric Association, and the 10th revision of the *International Classification of Mental Health and Behavioural Diseases* developed by the World Health Organization.

1.3 Aim and Objectives

The overall aim of this research was to evaluate social anxiety in adolescents with respect to determining how social anxiety affects quality of life. Cognitive and social interaction correlates of social anxiety were taken into consideration when analysing the data. Moreover, in a cross-cultural format, adolescents in an 'Eastern' and a 'Western' society were compared, the former assumed to hold more collectivist values and the latter assumed to hold more individualistic values.

The aim of this research was approached through six objectives:

1. To explore the reliability and validity of new, multi-dimensional scales for measuring social anxiety and its correlates in Arabic cultures which might have value in both diagnosis and research in Arab countries, such as Saudi Arabia.

2. To analyse the cultural aspects of social anxiety by comparing adolescents from UK and Saudi Arabian populations. This will have potential clinical implications for both assessment and therapy in Saudi Arabia.

3. To determine the prevalence of social anxiety among adolescents and its relation to quality of life.

4. To evaluate possible links (causal or correlational) between social anxiety, its cognitive aspect and, quality of life, and cultural tendency (such as individualism vs. collectivism).

5. To determine sex differences in social anxiety and its cognitive and cultural correlates among adolescents in Saudi Arabia.

6. To indicate age differences in social anxiety and its cognitive and cultural correlates among adolescents in Saudi Arabia.

1.4 Social Anxiety Disorder

Social anxiety (SA) is also known as social phobia (SP). In this study, social anxiety and social phobia are used interchangeably (APA, 1994). SA can be defined as an anxiety disorder in which a person has an excessive or unreasonable fear of being in social or performance situations (*DSM-IV*; *DSM-III*), in which the person is exposed to unfamiliar people or to possible scrutiny, judgement, criticism or rejection by others. The individual fears that he or she will act in a way that will be humiliating or embarrassing.

The person endures certain social situations in extreme distress or may avoid them altogether, sometimes leading to experiencing panic attacks. The fear and avoidance must not be due to the physiological effects of substances or any other general medical condition such as panic disorders as part of one of the pervasive developmental disorders. Social phobia usually affects the individual's normal routine, occupational (academic) functioning, or social activities or relationships.

In addition, the *DSM-IV* states that the fear should be marked and persistent and involve one or more incidents. Previously in individuals below age 18 years, a diagnosis requires the duration of the symptoms to be at least six months. However, according to the *DSM-5*, the duration of at least six months now applies to everyone, not only to children.

While the *DSM* definition of social anxiety is comprehensive and precise – the *DSM-IV* contains seven diagnostic criteria (A-G) – there are several potential problems with this definition. For example, the use of the term 'panic attack' in criterion B is the name of a separate anxiety disorder. This can lead to confusion and incorrect diagnosis; it is possible for people to have both panic disorder and social anxiety disorder, as

defined by the *DSM-IV*. In addition, more information is needed about the in-vivo (real life) processes contributing to social anxiety. Therefore, the aim of this study is to discuss and evaluate psychological models of social anxiety.

1.4.1 Social fears

Olledick and Hirshfel-Becker (2002) consider social fears to be an important facet of normal development. A study by Essau, Conradt, and Petermann (1999) of adolescents aged 12-17 found that almost 50% of the participants had a social fear. The most common fears in a school environment have been found to pertain to reading in a class or doing speech and drama performances (Kearney, 2005). In a clinical group, fear has been found to be a common reaction to public speaking and in school-related situations (Turner & Morris, 1999; Rao et al., 2007). Bernstein et al. (2007) found that anxiety was also related to a lack of social skills, learning and attention problems. As these skills vary with age, the level of fear may also vary with age in this age group.

Social anxiety ranks as the third most common mental health disorder after depression and alcohol abuse (Furmark, 2002). At least one in every ten persons has at some time in their life been affected by social phobia, a phenomenon experienced in almost every culture studied. By adulthood, a large proportion of people acknowledge having experienced at least transient social anxiety on occasion, predominantly regarding public speaking or performing in front of others (Cox et al., 2003; Kessler, Stein & Berglund, 1998).

1.5 Definitions, Classification and Diagnostic Criteria

1.5.1 Definitions of social anxiety

Social phobia was initially described as a fear of performance situations (*DSM-III*, APA, 1980); it did not include fears of less formal situations such as casual conversations. In 1994, with the release of the *DSM-IV*, the term social anxiety disorder (SAD) replaced social phobia. Following convention, the terms social phobia and SAD are used interchangeably in this study to refer to SAD. Many scholars have attempted to define the term ‘social anxiety’. Wittchen and Beloch (1996) define social phobia as a

"mental disorder" characterised by "chronic, impairing anxiety" and commonly occurring among all groups of people in society. Leary and Kowalski (1995) refer to social anxiety as the "stage fright of everyday life". To them, people may suffer from anxiety because of the different social institutions they are related to and their social interactions.

Social phobia (SP) is a devastating psychiatric condition which has concerned scholars and practitioners for the past three decades. Recognition of the condition has grown with the increase in epidemiological evidence and other related research. In the 1980s, the APA defined social phobia as "a persistent fear of one or more situations (the socially phobic situations) in which the person is exposed to possible scrutiny by others, and fear that he or she may do something or act in any way that will be humiliating or embarrassing" (APA, 1987, p. 241). The situation is exacerbated by fear related to humiliation and embarrassment because of the individual's level of anxiety. The anxiety comes from not being able to communicate with unfamiliar people, in a public speaking or other context (APA, 1994). The *DSM-IV* gives the following criteria for diagnosing SP:

1) An obvious and tenacious fear of performance or social circumstances in which embarrassment may occur;
2) Contact with the public or a performance situation almost invariably provokes an immediate anxiety response (APA, 2000).

The most important difficulty for those who suffer from social phobia is fear, which is usually unreasonable and excessive (van Velzen, Emmelkamp & Scholing, 2000), and, in some cases, debilitating (Stemberger, Turner, Beidel, & Calhoun, 1995). From this it may be inferred that the norm is to interact with others with the necessary social skills, but in those with SP, the thought that they are being regarded negatively prevents them from interacting with others, while their fear compels them to avoid those situations (Kashdan & Steger, 2006). Their inner psychological reactions trigger anxiety (Spector, Pecknold & Libman, 2003). As a result of not participating in social activities,

public speaking, conversations or meeting new people, these individuals may appear to be uninterested in social relations (Kashdan, 2002).

Apart from this medical point of view, social phobia has been analysed by Leary and Kowalski (1995) from a psychological perspective. They established that people suffering from social anxiety tend to express their anxiety through nervousness, annoyance, uneasiness and a desire to flee, which makes it difficult to meet people of the other sex. They cannot handle the situation properly or manage the usual stresses of life. What is most devastating for them is that they do not feel comfortable among their fellow beings.

Diagnosis of social phobia (SP) is difficult due to overlaps with other, related psychological disorders such as simple phobia and agoraphobia (Turner, Beidel et al., 1989). As Nichols (1974, p. 301) observes, "The use of the term SP has grown and it is now commonly found to be in use as part of the everyday language of the clinic". Similarly, Roth (1969) argues that social phobia is distinguishable from other phobias. According to both *ICD-10* and *DSM-IV*, social phobia and agoraphobia are now treated as two different phobia conditions. Specialists around the world tend to rely on the criteria of the *DSM-IV* (APA, 2000) or the *ICD-10* (WHO, 1993) for diagnosing SP.

Some general similarities can be observed between the *DSM-IV* and *ICD-10* diagnostic criteria, with the crucial difference being agoraphobia and social phobia. The *ICD-10* recommends that preference should be given to agoraphobia when it is difficult to differentiate between the two, whereas the *DSM-IV* distinguishes between these two conditions as follows: The social phobia diagnosis is preferred when fear is experienced in any social situation, whereas agoraphobia is diagnosed when the condition is related with the panic attack or becoming incapacitated in certain types of situations.

The above two systems of classification describe the required features of social phobia, namely, being evaluated in social situations, including the perceived criticism- or humiliation-related fear and the motivation to avoid such situations. The above conditions can be described as generalised or diffuse if they are related to every social situation, and as non-generalised or discrete if they are based on only particular types of social or performance situations.

1.5.2 Prevalence

With a reported prevalence of up to 16%, SP is now deemed as one of the most common anxiety disorders (van Ameringen et al., 2003). Researchers have assessed 12-month prevalence rates in the range of 7-8% in the USA (Kessler et al. 1994; Kroenke, Spitzer, Williams, Monahan & Löwe, 2007) which is higher than previous studies have revealed (Davidson, Hughes, George & Blazer, 1993; Schneier, Johnson, Hornig, Liebowitz & Weissman, 1992). Following the *DSM-IV* criteria, it has been found that lifetime prevalence rates of social phobia are 4.9% in males and 9.5% in females, according to a US-based communication study among adolescents and young adults (Magee, Eaton, Wittchen, McGonagle & Kessler, 1996; Schneier et al., 1992; Wittchen, Stein & Kessler, 1999). To determine lifetime prevalence rates, numerous epidemiological studies have been conducted; these have found rates ranging from 2.4% to 16% in Western countries (Furmark, 2002; Mohammadi, Ghanizadeh, Mohammadi & Mesgarpour, 2006; Schneier et al., 1992). The *ICD-10* has found a prevalence rate of 2.8% in Australia, whereas the rate, following *DSM-IV* criteria, was found to be 2.3% (Seidman et al., 2002). Explanations for the variance in the rates cited above include measurement issues, definitional differences, and cultural differences.

In recent years, SP has gained attention in research and clinical practice in relation to children and adolescents. According to *DSM-III* and *DSM-III-R* rates, about 1% of children suffer from SP (Kashani & Orvaschel, 1990; McGee et al., 1990). Similar rates have been found using the *DSM-IV* criteria for social phobia among children in the USA (Kendall & Warman, 1996). Based on *DSM-IV* criteria, a lifetime rate of 16% has been found among adolescents in Germany (Essau, Conradt & Petermann, 2000). Nevertheless, there is a dearth of prevalence rates based on the *DSM-IV*, with many studies on social phobia among children using the diagnostic criteria of previous version of the *DSM* (Velting & Albano, 2001).

A Saudi Arabian study was conducted of out-patients at a clinic situated in Riyadh. Of more than a year in duration, it was found that 9.2% of all the psychiatric disorders diagnosed were classified as social phobia (Arafa et al., 1992). It has also been found that over 13% of the patients visiting psychiatric clinics in Saudi Arabia have the

condition of SP (Chaleby, 1987). Due to strict cultural norms, these samples are comprised largely of men, and little is known about the prevalence rates of SP in Saudi women. Researchers have examined cultural reasons for this research sample bias (Bassiony, 2005). First, because the Saudi workforce is comprised mainly of males, Saudi males tend to have more opportunity to interact in social situations.. Second, Saudi norms require that women are accompanied by a male relative. This restricts their access to facilities such as health services because women are required to explain their health-related problems and convince their male relatives of the necessity of visiting the health service; consequently it is more convenient for studies to access males only. In Saudi Arabian society, psychological consultation still carries a stigma, particularly for females whose privacy and confidentiality are not well protected, due to the requirement that they let their male relative(s) know about their issues.

Within the Saudi context, some vital studies have been conducted on SP in children and young people, although less is known about the prevalence of SP in these populations. Phobic anxiety is the most frequent mental-health-related problem among Saudi adolescents, with a rate of around 17.3% (Mahfouz et al., 2009). Another study, of 545 Saudi female students, found a prevalence rate of 16.4% for phobic anxiety (Al Gelban, 2009). To date, no epidemiological studies have been conducted in Saudi Arabia or any other Arab country on SP among adolescents. The aim of the present study is to fill this gap in the research by considering the Saudi Arabian context.

The prevalence rate of SAD in adult samples, based on *DSM-III* and *DSM-IV* criteria, varies between 3.9-13.1%, and SAD is one of the most common psychiatric disorder in adult samples (Furmark, 2002; Ruscio et al., 2007). Rantanen and Martunen (2009) stipulate that the prevalence rate in children and adolescents aged 6-17 is around 1.6-5.6%. In a community sample of adolescents aged 13-18, SAD was the most common disorder found (Verhulst, Van der Ende, Ferdiannd, & Kasius, 1997). High rates of SAD were also found in participants aged 15-24 (Kessler et al., 1994; Magee et al., 2000). However, due to different methods used as well as cultural variation, prevalence figures for SAD should be interpreted cautiously, especially in non-clinical samples. SAD-related fears should be defined by giving more examples, particularly of

what constitutes interaction-related situations (Bögels et al., 2010). It follows that more research needs to be done on adults on SAD, with evidence from Swedish research revealing that there is an increased tendency to internalise symptoms such as anxiety and depression in almost all age groups (Serlachius & Ingvar, 2009; Sou, 2006). Because specific data on adolescents with SAD is lacking, while reports on mental health problems are increasing, it is important for epidemiological studies to address this lacuna and in effort to prevent psychiatric illnesses. The following section addresses the general prevalence of SAD by sex. The next section discusses the symptoms of social anxiety.

1.6 Symptoms of Social Anxiety

1.6.1 Beliefs

According to Wells (1997), in individuals with social anxiety; emotion belief may play an important role in the process of developing and maintaining social anxiety. Usually these beliefs are about the person themselves, and the fear of being judged harshly or being rejected by others remains the greatest problem. Wells and Clark (1995) argue that these beliefs are connected, with individuals setting up rigid rules for social performance in an effort to prevent rejection. These efforts often result in a situational bias which confirms the person's core beliefs as they make the person behave in a way that is odd, or set a standard that is impossible to achieve. Because of biased thinking, the person is more likely to recognise or pay attention to information that is concordant with failure instead of paying attention to the positive aspects related to success (Beck & Clark, 1997; Beck & Emery, 1985). These biases are likely to prevent the individual from behaving in alternative ways that could challenge their beliefs. Werner, Goldin, Ball, Heimberg, & Gross (2011) argue that individuals with social anxiety disorder struggle with expressing their emotional experiences. De Castella et al. (2014) point out that emotion belief may play important role in social anxiety. (De Castella et al., 2014, p. 144) found that:

> *SAD patients who believed they could not change or control their emotions reported higher levels of perceived stress and anxiety, higher levels of negative*

affect, and lower levels of self-esteem. Even when controlling for social anxiety severity, patients differed in their beliefs about their emotions, and these beliefs explained unique variance on these measures

According to cognitive theories of anxiety disorders, anxious individuals are characterised by maladaptive schemata for threat. Wenzel (2004) investigated schema content related to threat in a group of individuals with social phobia, compared to a non-clinical (non-anxious) group. The participants were asked to generate scripts, or event-based schemata, for two common scenarios, one social in nature, and one evaluative in nature. Wenzel hypothesised that the scripts of the socially phobic group should contain more references to perceived danger, unsuccessful coping, and/or indicators of anxiety and fear. This expectation generally was confirmed. She found that participants in the social phobia group referred more often to events reflecting the experience of anxiety and their scripts reflected a more negative affective tone than those of the non-anxious participants. Wenzel (2004) concludes that the results indicate the underlying maladaptive schemas of people who have social phobias.

The study was not however without limitations; it was unable to explore the schemas directly, and the author used her colleagues as assessors rather than a validated technique. Additionally, the sample sizes were small, which would have weakened statistical power in analysing differences between the two groups. The sample was relatively small, consisting of only 16 socially phobic participants and 17 non-anxious individuals. The socially phobic individuals were recruited both from the outpatient psychiatric clinic and via community advertisements, whereas the non-anxious individuals were recruited only via community advertisements. As a result, 69% of the sample was assigned the generalised subtype, while 31% was reported with more circumscribed on cognitive theories of anxiety and its treatment with a small sample. Wenzel (2004) notes that more stable estimates of the study groups' schemata would be obtained by using bigger sample sizes. In addition, Wenzel observes that the participants were mainly Caucasian; by including different ethnic and cultural groups, researchers can generate information that is richer and more representative.

It has been proposed that socially phobic individuals, upon encountering social situations that they perceive as holding the potential for negative evaluation, become increasingly self-focused (Rapee & Heimberg, 1997; Clark & Wells, 1995), which interferes with information-processing (Woody, 1996), the ability to attend to the social task at hand, and disrupted performance, potentially eliciting negative responses from others (Rapee & Heimberg, 1997). Coles, Turk, Heimbur and Fresoc (2001) studied memory perspective and attributions in social situations of varying anxiety levels, based on 30 individuals diagnosed with social phobia compared to 24 individuals as controls who, when asked to recall memories of low, medium and high anxiety social situations, remained calm. They found that patients' attributions for their performance became more internal, stable, and global as the anxiety level of the situation increased, while the attributions of control subjects showed the opposite pattern. It was concluded that, while those with social anxiety have negative self-schemas, this was only aggravated when situations that are anxiety-provoking were experienced. Other studies have also explored the issue of mental imagery as experienced in groups (e.g., Coles et al., 2001).

1.6.2 Cognitions

People with anxiety disorders typically have three different types of cognitions, namely, negative automatic thoughts; rapid negative thoughts (Beck, Emery & Greenberg, 1985); and worries and obsessions. Worry is defined as a chain of thoughts aimed at problem-solving that is usually accompanied by feelings of distress or anxiety. According to Beck, Emery and Greenberg (1985), worry should be seen as a predominantly verbal process compared to negative automatic thoughts. Other scholars such as Wells (1997) argue that in patients with anxiety disorders, worries can manifest as spontaneously occurring mental images in which patients 'see' their fears realised. In contrast, obsessions can be seen as urges or impulses because they last longer and at times occur as part of the individual's thought processes. Wells (1997) also contends that negative automatic thoughts and worries are closely linked to the person's thoughts, impulses, attitudes, and behaviour, that is, they are ego-syntonic.

Watson and Friend (1969) identified other cognitions which are commonly experienced by people with social anxiety. They found that this group had a fear of

negative evaluation from others and, feeling compelled to present themselves in a more acceptable manner, the effort was often exaggerated. Accordingly, the authors developed the Fear of Negative Evaluation Scale, a 30-item questionnaire using 'true or false' format to indicate the presence of cognitions linked to social anxiety. Moreover, cognitions were often found in panic disorder and have been linked with social anxiety (Kristensen, Mortensen, & Mors, 2009). Later, Leary (1983) designed a shorter 12-item version, which is more commonly used to assess social anxiety individuals.

1.6.3 Imagery

Clark and Wells's (1995) Cognitive Model of Social Phobia holds that individuals with social anxiety perceive themselves as social objects. Several studies have explored this proposition. Hackman, Surawy and Clark (1998) used semi-structured interviews to explore the images that constantly appear during episodes of social anxiety by comparing the experiences of 30 individuals with social anxiety to 24 non-clinical controls, matched for sex, age and education. Those with social anxiety reported frequencies of randomly appearing images that were significantly higher than those of the controls. In addition, the clinical group were found to have clearer images as compared to those of the control group (66.6% for the clinical group; 22% for the non-clinical group). They also found, using a *t*-test that the social phobia group were more likely to perceive from an observer's point of view and perceive images that were negative compared to the control group. Interestingly, the socially anxious participants admitted that the observations they experienced during anxiety were not well aligned with reality.

The authors conclude that negative self-images contributed to the persistence of social anxiety, and it was therefore important to ensure treatment would focus on diminishing the occurrence of such images, as well as their unhelpful content. However, these results should be read with caution since the sample size was very small, although the results are clearly statistically significant in relation to the differences in group size. In Hackmann, Surawy, and Clark (1998) study, individuals with social phobia were tested to determine whether people were capable of recalling social situations from a non-observer perspective. Participants were asked to recall both a social and a non-social

situation. They were then asked to rate what they observed using a 7-point scale ranging from -3 to +3.

This procedure was repeated for the non-social situation. The mean scores for the socially phobic group were estimated to be -1.2 for non-social memory and +1.8 for social memory as compared to the control group's score of -0.8 and 0.6 respectively. In addition, the authors conducted *t*-tests between the groups and found that the differences were statistically significant in relation to the social situation, but not significant in relation to the non-social situation ($p = .58$). It was concluded that people with social phobia were most likely to remember situations from an observer viewpoint in social situations rather than in non-social situations, considering the mixture of observer and field perspectives. Based on Clark and Wells's (1995) Model of Social Phobia, this research suggests that when people with social phobia engage in cognitive processing after having been involved in certain experiences, their self–focus compels them to overlook information from others which could be important in challenging their anxiety about not having made a good impression.

1.6.4 Possible antecedents of social anxiety

The most obvious reasons for the disorder include: unemployment, retirement, homemaking, and common problems experienced by individuals in the social and academic worlds (Wittchen & Beloch, 1996). While social anxiety affects people of all age groups to some extent, it particularly affects adolescents. According to Hopper (2007), healthy emotional development of children and adolescents is one of the preconditions of social and behavioural conformity. The author further argues that conformity is seen as success, and that this is problematic. This is because conformity is the outward manifestation of accepting principles laid down by others, state or society, which may or may not align with an individual's values and abilities. McClure and Pine (2006) contend that conforming to societal norms is often accompanied by 'fear and anxiety', referring to stimuli that the individual perceives as threatening or as capable of producing harm and that elicit avoidance. In addition, anxiety can occur in the absence of overt threat or punishment. Quoting Holt et al. (1992), Leary and Kowalski (1995)

summarise situations commonly associated with social anxiety. These include: situations related to formal speaking or interactions such as delivering speeches, performing on stage, reporting or speaking to a meeting, attending a party, picking up someone from the street, meeting a stranger, expressing cross views, and fear of being observed by others. Public speaking may in turn include: speaking in front of a large audience (Stein, Walker & Forde, 1996); speaking to a small, familiar group of people; dealing with people in authority, attending social gatherings; and interacting with a stranger (Stein & Colleagues, 1994). Many of these experiences of social anxiety are commonly experienced in adolescence as cultural phenomena. With the emerging emphasis on specificity about the anxiety state, a focus on developmental changes in individual symptoms and symptom patterns has followed; this has stimulated a series of studies on changes in social anxiety across development.

1.6.5 Significance of social anxiety

Ginsburg, La Greca and Silverman (1998) observe that social anxiety is an important factor in order to understand social dysfunction, particularly, among a community sample of adolescents as well as its link with impairments in young people's emotional functioning. In addition, they note that social concerns have been identified by developmental studies as an important part of anxiety that particularly appears during adolescence, as well as adulthood.

Social phobia can have a catastrophic impact on adolescents as they face many of the aforementioned situations in everyday life. As Crozier, Gillihan and Powers (2011) found, the same symptoms that occur in specific phobias also occur in social phobias. Wittchen and Beloch (1996) found that most individuals suffering from social phobia develop acute illness which disrupts their everyday activities. It has also been found that subjects suffering from social phobia rarely meet a doctor for proper treatment. According to the Epidemiologic Catchment Area study, only 19.6% of individuals with social anxiety sought treatment (Simon et al., 2002).

1.7 Social Anxiety and Quality of Life

One aim of the current study is to discover how social anxiety affects the maintenance of quality of life. Koot (2001) shows that Quality of Life (QoL) can be defined in a number of ways. Primarily it is concerned with the individual's subjective notions about life. The individual's attitudes towards health, social participation, routine and economic conditions need to be considered in order to determine his or her quality of life. Similarly, Ghaedi and Tavoli (2009) contend that a patient's quality of life depends on his or her "physical, social, and psychological" conditions. According to Koot and Wallander (2001), QoL incorporates the "functional impairments, handicaps, and living conditions of an individual". Hughes et al. (1995, in Koot & Wallander, 2001) identified 44 definitions of QoL with 15 different dimensions. Defined from a medical point of view, QoL can be considered as a field concerned with "subjective health status" (Koot & Wallander, 2001). On the other hand, Wallander (2001) shows that quality of life can be considered as an abstract paradigm which exists only in our thoughts. It may be concluded that the construct QoL potentially incorporates all domains of human life. Imposing a particular philosophical genre on research about QoL is a way of delimiting the parameters of the construct so that it can be usefully studied.

1.8 Cross-cultural Variations

While social anxiety is a common phenomenon in almost all the countries of the world, the symptoms of social anxiety across different cultures may manifest differently (Zender, 2001). One of the aims of this study is to examine the quality of life of adolescents in a cross-cultural context, namely the United Kingdom and Saudi Arabia. These countries were selected because the social and cultural realities of these two countries differ in many respects.

With the emergence of globalisation, Eastern and Western countries increasingly share common tendencies in their beliefs and ideologies. However, due to differences in the histories and ideologies of these countries, it is reasonable to hypothesise that the nature of this anxiety varies in Eastern and Western countries. The objective of this

research is to examine how social anxiety and maintenance of the quality of life are associated in adolescents in one 'Eastern' and one 'Western' country[1].

Studies on Arab societies suggest that people who live in a dual cultural position, such as a tribal and a modern one, may be at risk for high levels of psychological problems (Ghobash & Bibbington, 1994; Ibrahim & Al-Nafie, 1990). Unfortunately, little is known about this growing sector of the Saudi Arabian population in terms of mental health and psychological problems. In a study to assess the prevalence of psychological symptoms in Saudi Arabia, Mahfouz (2009) found that overall prevalence of mental disorders among school-age adolescents of both sexes amounted to 15.5%. Furthermore, the most frequent mental symptom was phobic anxiety (17.3%). Similarly, Al Gelban (2009) found that the most prevalent mental health symptoms disorder in Saudi female students was phobic anxiety. However, Ragheb et al. (2007) claim that only two published studies reported social phobia prevalence in an Arab country. They highlight the need for psychometric measures for screening or diagnosis of social anxiety in Arabic countries.

The study of social phobia and social anxiety in adolescents is relatively new. While Zhou et al. (2008) claim that attention has been given to the negative effect of social anxiety on adolescents' social and academic worlds, the current study seeks to better illuminate the debilitating effect of social phobia on the quality of adolescent life in an under-studied cultural setting, Saudi Arabia. Saudi Arabia is a relatively young society with 47% of the population under 15 years old, according to Khoja and Farid (2000and 69% under 30 years old.

As far as diagnostic measures for anxiety disorder are concerned, the effect of social anxiety on an individual's social functioning has been investigated while less is known about the extent to which social anxiety is associated with quality of life variables in different cultural settings. The present research is an attempt to develop appropriate, valid and reliable measures in this respect and, furthermore, to examine two

[1] These terms are placed in inverted commas because the East–West dichotomy is not a geographical division but rather a sociological concept used to describe perceived differences between Eastern and Western cultures. The boundaries of East and West are not fixed, but vary according to the criteria adopted by individuals using the term.

mental health variables, namely social anxiety and quality of life, in an adolescent population in Saudi Arabia. Detecting cultural differences has the potential to make these findings more meaningful.

In the present study, the aim is to address the interpersonal consequences of social anxiety by asking both socially-anxious and non-socially-anxious adolescents about their quality of life. It is expected that socially-anxious participants will report a poor quality of life on the World Health Organization Quality of Life (WHOQOL-BREF) scale. It is also predicted that, because most people enjoy social interaction (Berry & Hansen, 1996), non-socially-anxious participants would report lower scores on social phobia.

The impact of SP on adolescents has not been well studied. The objective of the present study is to show how social phobia impacts on the QoL domains of the Saudi patients, by presenting a comparative picture of the QoL of those affected by social phobia and those not affected.

Few studies have been conducted on social interaction anxiety in which a person suffers from communication-related impairment (Mattick & Clarke, 1998). This can be a devastating disorder for adolescents in that it affects the development of their other faculties and impedes their ability to adapt to mainstream society (Haywood et al., 2008). Studies on this topic in non-European countries are limited. The present study aims to determine the risk factors for social phobia in Saudi Arabian adolescents. The following section introduces the four empirical stages of the study.

1.9 Empirical Stages of the Study

This section discusses the empirical stages of the present research. It includes implications of the adaptation of the study scales such as the translation and back-translation method. In addition, it explores the reliability and validity of a new, multi-dimensional scale for measuring social anxiety in Arabic populations which might have value in both diagnosis and research in Arab countries such as Saudi Arabia.

Stage 1:

The first stage aims at choosing appropriate scales to measure the main study variables, social anxiety, quality of life and individualism-collectivism scales in order to suit Saudi Arabian culture. To this end, a pilot study was conducted. Translated and back-translated instruments are demonstrated then compared with the original and culturally adapted. The reliability of the Arabic version of all instrumentations is evaluated by test-retest reliability. In terms of validation, construct validity is evaluated.

Stage 2:

The prevalence of social anxiety in a community sample of adolescent students is measured. Moreover, a clinical sample is also demonstrated

Stage 3:

Stage three aims at examining cultural differences. It compares the levels of social anxiety, quality of life and individualism-collectivism between adolescents from Saudi Arabia and the United Kingdom.

Stage 4:

This stage creates a measurement model to evaluate the link between social anxiety in adolescents and quality of life. Consequently, cognitive and social correlates of social anxiety are taken into consideration when analysing the data to draw a full picture of this measurement model.

1.10 Organisation and Structure of the Thesis

The work is presented in eleven chapters. Chapter one has provided the introduction of the study outline and background including the effect of social anxiety, research motivation, research aim and objectives. It also includes the significance of the research, methodology and the process of the study.

The next chapter provides a review of the literature on the prevalence of social anxiety relevant to quality of life. This chapter demonstrates the relative dearth of research on the impact of social anxiety disorder on quality of life as well as the

comorbidity of social anxiety with other psychiatric disorders and the impact of culture on social anxiety.

Chapter three highlights the background of Saudi Arabian culture and society focusing on mental health problems and services.

Chapter four develops a theoretical framework and hypotheses based on the key arguments and findings from the literature review of social anxiety, cognitive aspects and culture tendencies.

Chapter five discusses the research framework which aims to evaluate the link between social anxiety in adolescents and their quality of life. This chapter identifies the proposition of the conducting of structural equation modelling.

Chapter six discusses the research methodology used in this study from the philosophical foundation to research design, data collection and data analysis.

Chapter seven presents the results of the pilot study which explores the reliability and validity of a new, multi-dimensional scale for measuring social anxiety among adolescents in Arabic cultures, with value in both diagnosis and research in Arab countries such as Saudi Arabia.

Chapter eight presents the quantitative data collection and analysis of the cross-sectional survey results, including descriptive and inferential statistics, to address the research questions.

Chapter nine presents the structural equation modelling results. Structural equation modelling with full information maximum likelihood (FIML) is used to find unbiased parameter estimates of the structural model in order to test the hypotheses of this study. Two structural models are proposed to test the hypothesised relationships and mediation through social anxiety scales – Adolescents (SAS-A) and Social Phobia Inventory (SPIN). The chapter also discusses the development of mode hypotheses, namely, relationships between Social interaction (SIAS), Cognitive (BFNE), Cultural tendency (SRAQ), Anxiety (BAI), Social anxiety (SA), and Quality of life (QoL).

Chapter ten discusses the results in view of the research questions, previous studies and implications for practice. It compares the findings with earlier research.

Finally, chapter eleven concludes the thesis, summarising the empirical findings as well as highlighting the thesis's contributions to the field of social anxiety disorder. It also presents a summary of this thesis and draws conclusions, based on findings from testing the study hypotheses. It highlights the limitation of the current study and provides opportunities for future research in the same field.

1.11 Summary

Social anxiety is a common psychiatric disorder, characterised by a strong fear of being humiliated or embarrassed by strangers. Cognitive and emotional responses are triggered by thoughts of being observed and scrutinised by others (APA, 1987). Their interactions in social situations are usually disrupted by their anxiety due to their inability to adapt to social situations.

This review has discussed factors thought to play a vital role in the development of SP. Genetic predisposition and temperamental traits are considered internal factors in the development of SP. Dysfunctional patterns can be triggered by the negative parenting or trauma, since much of children's socialisation is learned from the family, considered an external or environmental factor. In addition to individual and family factors, development and maintenance of SP is also constituted by cultural factors.

The significance of measurement instruments for deriving accurate findings about SP was discussed. It was noted that Arabic and Saudi societies do not yet have culturally validated measures for investigating childhood social phobias.

Findings on sex and SP were argued to be inconsistent. Additionally, several disorders have been found to be associated with SP, although more disambiguation of these relationships is required, particularly concerning post-traumatic stress disorder and SP. From childhood, parents play a dominant role in the development of the child-parent relationship, as well as in the child's mental health. Surprisingly few studies have been conducted on treatment interventions for SP, the parenting role and quality-of-life factors. Understanding of social anxiety needs to be refined before appropriate interventions can be developed. Chapter two reviews the literature on social phobia in

adolescents, while chapter three considers the mental health problems of young people in Saudi Arabia.

CHAPTER TWO

2 LITERATURE REVIEW

2.1 Overview

As there are no Arabic studies relating directly or indirectly to this subject, the literature review of the impact of social anxiety disorder on quality of life is based largely on other Middle Eastern countries as well as Far Eastern countries and Western cultures. This chapter presents the phenomenology of social anxiety in adolescents, including the impairment, age of onset, sex difference in social anxiety and prevalence rate of SAD. The aetiology of social phobia is discussed in relation to genetic predisposition, behavioural inhibition and neuroticism. The impact of culture on social anxiety is discussed in depth, highlighting the cross-cultural context. Finally, the relevant literature on quality of life in individuals with social phobia is discussed.

2.2 Phenomenology of Social Anxiety in Children and Adolescents

The main fears of those with SAD pertain to social evaluation and negative expectations related to being scrutinised and evaluated. This negative evaluation is normally related to the individual's anxiety symptoms and certain behavioural manifestations or the individual's appearance. Childhood social anxiety can be described with reference to three realms: behavioural, cognitive and physiological.

Concerning the behavioural realm, studies have revealed that children with Social Anxiety Disorder tend to avoid athletic performance and find it more difficult to give oral reports, go to discos and eat in dining halls with other children. Bögels et al. (2010) found that avoidant behaviour can also be less overt as compared to other phobias. Termed safety behaviours, these may consist of more understated avoidance methods, such as dressing in a manner that conceals nervousness, and in some cases sitting at the back of the class to avoid detection.

Concerning the cognitive realm, Bögels and Zigterman (2000) found that children and adolescents commonly over-estimate danger in situations that are unambiguous. In some cases, they perceive threats and make negative interpretations of situations they feel are confusing (Muris, Merckelbach & Damsma, 2000). Young people with social anxiety disorder are considered to be extremely self-conscious. As Kearney (2005) argues, they tend to focus on physiological arousal and readily notice signs of negative evaluation, sometimes losing all confidence and devaluing their own competence.

Concerning the physiological realm, Essau et al. (1999) note that the physiological reactions of children with SAD are very similar to those of other anxiety disorders, and are usually accompanied by increased heart rate, shortness in breadth, sweating, trembling and muscle tension. Other problems such as stomach aches and headaches are also common (Beidel et al., 1999).

A number of studies claim that manifestation and expression of SAD varies according to developmental phase and that the phenomenology of SAD should be considered in a developmental context (Albano & Hayward, 2004; Alfano, Beidel & Turner, 2006). These studies also highlight that, in children, common related manifestations include somatic complaints, clinging, crying and whining (Albano & Hayward, 2004; Beidel et al., 1999). Another important aspect in socially phobic children who are in their early childhood is oppositional behaviour, also described as comorbid and an externalising symptom or an expression of a strong social fear, usually marked with avoidance. In most cases, the impairment of SAD may be more salient than the presented symptoms themselves.

2.2.1 Impairment

Social anxiety is seen to interfere with daily life and it has been observed that it is linked to substantial impairment (Essau et al., 1999; Wittchen, Stein & Kessler, 1999). Both threshold and sub-threshold SAD have been shown to be linked to substantial impairment. Van Roy et al. (2009) and Van Ameringen et al. (2003) state that dropping out of school early and under-achievement are of particular concern among children and

adolescents with social anxiety. Short-term and long-term refusal to attend classes is a common occurrence among such students. Beidel et al. (1999) argue that children referred with SAD tend to have fewer friends and are more likely to avoid extracurricular activities. Similar results have been seen in children who have not been referred as well. Van Roy et al. (2009) found that children (up to 13 years of age) with SAD had fewer friends and participated in extracurricular activities less than those without SAD. This study confirmed that children without significant social anxiety were less bullied or neglected than those who suffered from social anxiety. In contrast, Weeks et al. (2009) studied children aged 7 to 8 years, and found that socially anxious children reported more loneliness and attempts to avoid school than those who were non-anxious. Kearney (2005) observed that noticeable avoidance could hinder socially anxious adolescents as they would lack experience of situations that would enable them to enter into adulthood, including gaining independence from parents and engaging in travel and work outside school (Kearney, 2005).

The chapter focuses on SAD-related constructs, particularly those that are most common in childhood. Negative consequences are discussed, such as substance abuse, academic impairment, school refusal, anxiety, depression and loneliness. It is argued that these concepts have many similar or overlapping manifestations (Greco & Morris; Rubin, Coplan & Bowker, 2009). Before discussing the aetiology of social phobia, the following sections discuss age of onset, sex, social anxiety, social status and comorbidity.

2.2.2 Age of onset

The age of onset of SP has been found to be late adolescence or early adulthood (Amies, Gelder & Shaw, 1983; Bruce et al., 2005; Kessler et al., 2005; Lieb et al., 2000; Marks & Gelder, 1966; Stemberger et al., 1995; van Ameringen, Oakman, Mancini, Pipe & Chung, 2004). A US study found that the average age of the onset of SP is 15.5 years (Schneier et al., 1992). The study also reported that the average age of onset of SP in Sweden is 16 years (Öst, 1987), and argued that an age of onset of 25 years or more is unusual. Similarly, the NIMH (National Institute of Mental Health) Epidemiologic Catchment Area Study and the National Comorbidity Survey found, respectively, that

the average age of onset is 15.5 and 16.0 years (Magee et al., 1996; Schneier et al., 1992).

However, some researchers suggest that SP onset might begin even earlier, in childhood. For example, Rapee and Spence (2004) found that the mean age of onset of SP is earlier than adolescence. Similarly, Otto et al. (2001) found that the average age of onset of reported SP is 10 to 13 years. The Epidemiologic Catchment Area Study has confirmed a similar trend, indicating an onset age of 11 years or less (Chartier, Walker & Stein, 2003). One study has even reported onset age of as young as eight years (Beidel, Turner & Morris, 2000). The condition may shade gradually into inhibition of behavioural aspects and novelty-related avoidance (Davidson et al., 1997). However, appropriate instruments and measurements have yet to be developed to test this (Bögels & Tarrier, 2004).

It can be concluded that the most commonly reported age of onset for SP is during the period of adolescence, although some studies have found the age of onset to be during childhood. As mentioned above, such inconclusive outcomes may be an artefact of cultural factors, sampling methods and study instruments.

The age of onset of social anxiety is usually between 10 and 17 years, and it can be diagnosed from age 6 years and about 9 years (Bögels et al., 2010). Bögels et al. (2010) contend that it is rare to find new cases beyond that age. Moroever, certain aspects of cognition maturation are responsible for the onset of SAD in adolescence (Goedhart, Siebelink & Treffers, 2004). The process of learning how to accommodate other people's perspectives typically takes place during this adolescent development stage; for some this process can pose a threat due to a fear of being negatively evaluated. At this stage, increasing demands are placed on appearance and performance, and there tends to be a focus on attracting others for relationships with both peers and romantic partners (Albano, 1995). With this increased focus on social interaction, there is often increased interference from other people, which can lead to social distress, particularly in those unfamiliar with such methods of interaction (Rapee & Spence, 2004). Adolescents are known to report higher rates of avoidance than younger children. Social fears can be related to adolescent social pressures to conform to the values of others,

with a failure to do so often leading to self-blame. Evidence shows that the problem with this stage is that the dangers are internal, in contrast to earlier stages in which fear usually only arises from external sources.

Wittchen and Beloch (1996) found that the disorder usually starts during childhood and early adolescence. Research on adolescents showed that social phobia is becoming increasingly recognised as an important disorder among this population (Olivares et al., 2004). Other research corroborates that social anxiety and anxiety disorders are most commonly diagnosed in adolescents (Albano, 1995; La Greca & Lopez, 1998).

2.2.3 Shyness

Shyness refers to uneasiness and being reserved in situations that are new, usually linked to the fear of being evaluated negatively (Crozier, 1990). Shyness involves similar cognitions, behavioural responses and physiological reactions to those found in SAD. Despite having a high prevalence rate, shyness is regarded as a non-pathological condition (Turner, Beidel & Townsley, 1990). Crozier (2000) argues that while most people used shyness as a lay term, numerous people report experiencing shyness at some point in their life, although, as Crozier (2000) argues, shyness is a "fussy concept, … not really a precise term" and therefore difficult to define.

2.2.4 Shyness and social anxiety

According to Henderson and Zimbardo (2009, p. 6), "shyness has been defined as a heightened state of individuation characterised by excessive egocentric preoccupation and over-concern with social evaluation with the consequence that the shy person inhibits, withdraws, avoids and escapes". As such, shyness has a powerful effect on the patient's daily life situations. It can indicate the person's submission and despair in response to authoritarianism and aggression. Shyness can also be the result of passive mental reactions, constraining the person's behavioural freedom and having a damaging effect on personal esteem (Henderson & Zimbardo, 2009). Henderson and Zimbardo (2009) found that people who are shy usually become socially anxious and develop social phobia in their daily life situations. In addition, they are unmotivated to

interact positively or participate effectively with the social situations around them. These researchers found a strong relationship between shyness and social anxiety, with clients showing negative thought patterns, inhibited behaviours and painful emotions. They considered these symptoms to constitute psychological disorders and social phobia to be a serious problem affecting the reactions of the patients, making them feel that they are socially neglected, helpless and passive in their lives.. Henderson and Zimbardo (2009) also demonstrated using long-term research that clinical programmes specifically designed to assist people in the community in overcoming their social anxiety can be effective, helping patients to respond positively and helping clinicians to behave wisely in disseminating their services.

2.2.5 Social withdrawal

Social withdrawal is defined as refraining from social activities particularly when other peers are present (Rubin et al., 2009). Usually the person voluntarily withdraws from others rather than being rejected or isolated. However, evidence also shows that children who are socially withdrawn become easy targets of negative response and can easily be victimised by their peers.

2.2.6 Social anxiety and Sex

By age 13, the prevalence of SAD increases with a greater number of girls than boys reporting SAD (Canino et al., 2004; Costello et al., 2003; Essau, Conradt & Petermann, 2000). Furmark (2002) has reported a female: male prevalence of 3:2. According to Essau et al. (1999), sex differences are usually limited to situations that involve interacting with other people. Most boys and girls are found to have an increased fear of speaking or performing in front of others, but this was more common in females than in males (Essau et al., 1999). Similar findings were obtained by Sumter et al. (2009), however Wittchen et al. (1999) found that females had higher rates on all the measures in situations concerning social fear. Social fear is said to be linked to self-consciousness, which can result in girls worrying about their physical appearance, as well as about speaking or performing when surrounded by others. There is however a lack of theoretical models explaining sex differences, although some are beginning to

emerge and these include internalising disorders (Zahn-Waxler, Shirtcliff & Marceau, 2008).

Evidence of biological factors in social anxiety is mainly found in studies on animals as well as adult (human) populations (Lager, 2009). A cross-sectional survey by Deardorff et al. (2007) revealed that advanced pubertal development is linked to increased levels of social anxiety, especially in girls and to a lesser extent in boys. Studying boys and girls aged 10 to 12. Ge et al. (2006) found that pubertal status and timing is linked to the incidence of social incidence in that early physical development is often associated with sexual attention in girls, and in some cases subjects could negatively self-evaluate themselves which could lead to SAD. However there is need for more studies to clarify the biological factors underpinning the experience of SAD.

The increased rate of internalising in girls is also linked to interpersonal stress which has been reported to manifest during adolescence (Nolen-Hoeksema & Girgus, 1994). Research has found out that girls tend to be more oriented towards reaching personal goals and they encounter negative experiences in attempting to build connection, finding this aspect relatively stressful (Hayward & Sanborn, 2002; Rose & Rudolph, 2006; Rudolph, 2002).

Comeditation is an issue in gender studies that has gained much interest regarding issues of anxiety and depression. This can also be defined as dwelling on one's problems or focusing on negative feelings with another person, and it could be a coping method. Studies have found that it is more common for girls to reflect with a friend as compared to boys. Moreover, mothers usually spend more time reflecting with their daughters than with their sons (Rose, 2002; Walter & Rose, 2009). Girls in general are able to have closer relationships than boys, which can operate as a shield against emotional problems. However, Rose and Rudolph (2006) point out that closer relationships can also be associated with increased anxiety and, at times, depressive symptoms. The problem is that it normally reinforces avoidance and negative feelings, which could explain why a number of girls suffer from social anxiety. However, this issue requires further investigation using empirical means. Victimisation, which varies in form, is blamed for the high rates in social anxiety and depression in all people, but

this is most commonly found in adult people (Lager, 2009). Dinwiddie et al. (2000) highlight a link between child sexual and increased problems with SAD. From this discussion it can be concluded that sex differences are a mediating variable in the experience of depression and anxiety symptoms.

Findings about the relationship between sex and SP have so far been inconclusive. In clinical samples, there tends to be a lower prevalence of social phobias among women compared to all other types of phobias (Marks & Dar, 2000). As discussed above, in the Saudi Arabian context, patients with SP are predominantly male; 97.2% and 80% of such patients are male according to Arafa et al. (1992) and Chaleby (1987), respectively. The cultural influences underpinning this finding are discussed above. It is possible that the development, presentation and detection of SP in the Saudi context involve an interaction between sex differences and cultural factors. The sociocultural aspects of Saudi society are considered in more depth in chapter three.

Evidence of such sex differences in children is less clear; almost equal proportions of male and female children were found to experience SP and simple phobias (Strauss & Last, 1993). However, a higher prevalence of fears and worries has been reported in girls than in boys (Buka, Stichick, Birdthistle & Earls, 2001; Strauss & Last, 1993; Turk et al., 1998). In a study of 1,035 adolescents aged 12 to 17 years, it was found that a greater number of girls receive a SP diagnosis than boys, and this difference increases with age (Essau, Conradt & Petermann, 1999). This may be because sex differences in social interaction intensify with age, resulting in different profiles in clinical populations. Undoubtedly, due to cultural variation, the proportion of each sex presenting and undertaking the treatments for SP also varies. As children enter late adolescence and young adulthood, a similar pattern is noticed in the case of Arabic countries, including Saudi culture. In the development and prognosis of SP, other risk factors are arguably important. The section 2.2.7 reviews other interrelated risk factors for developing SP.

In the case of females, lack of friends and intimate relationships can raise levels of anxiety (La Greca & Lopez, 1992). Sex-based study reveals inconsistent findings about social anxiety in men and women. While some research affirms that females have

more social anxiety than their male counterparts (De Gregoria & Carver, 1980; La Greca & Lopez, 1992; Loudin et al., 2003; Rose & Rudolph, 2006), other research has found the opposite (Palanci & Ozbay, 2003; Subasi, 2005), while yet others have found no substantial differences in the social anxiety experienced by males and females (Erath et al., 2007; Feingold, 1994; Patterson & Ritts, 1997; Sertelin, 2007; Teachman & Allen, 2007).

Rose and Rudolph (2006) show that women are very concerned about their self-observations regarding their life and career. Undoubtedly, the complexities of their self-perceptions have an impact on their social functioning. On the other hand, males can internalise their problems to a higher degree than females, with the implication that they may be more affected by social anxiety than their female counterparts. These observations are based on empirical study in different social and cultural paradigms, which require that both males and females adhere to the norms of their particular social structure (Leary & Kowalski, 1995).

2.2.7 Social functioning and social anxiety

In a study on the risk factors for SP among the adolescents, Erath et al. (2010) argue that social anxieties are the result of factors concerning social structure. Involvements in different social activities in schools, for example, are determined by the individual's psychological profile, resulting in different levels of cultural and social functioning. During these processes, socially phobic individuals are afraid of being negatively evaluated (Beidel & Turner, 2007). This fear makes them self-conscious and aware of their marginalised status among the socially superior peer group (Loukas et al., 2005). Thus, there is a correlation between social anxiety and social functioning. The less involved in social functioning the person is, the higher their social anxiety would be.

2.2.8 Urbanisation

In terms of social anxiety and SAD, a lack of empirical evidence exists on the effects of urbanisation in children and adolescents. Canino et al. (2004) and Angold et

al. (2002) suggest that whether one lives in a rural or urban environment has a significant correlation with childhood SAD.

2.2.9 Ethnicity

Studies by Kearney (2005) and Kennan et al. (2009) found no correlation between ethnicity and the prevalence of SAD. However, in a clinical group of children with SAD, a trend towards lower levels of SAD was associated with African-American children (Beidel et al., 1999).

2.2.10 Family and Socio-economic Status

Furmark (2002) has found that SAD tends to be associated with low income levels, low achievement in school, and also having no partner. Little information has been provided about the effect of other areas such as parental education, household income, and social status in children and adolescents. Tiet et al. (2001) found that boys with SAD had parents who had a lower income than those in a non-clinical group. In conclusion, support for the socio-demographic characteristics of SAD in non-clinical group is sparse, and it appears that sex is a better indicator of social anxiety in adolescents than socio-demographic characteristics.

2.2.11 Comorbidity

Higher rates of SAD were seen in community samples of children with a strong presence of depression, with around 30-50% reporting depressive symptoms (Essau et al. 1999; Rantanen et al., 2009). This suggests a correlation between SAD and depression. Depression and anxiety are however seen as separate elements (Hake et al., 2009). Beidel et al. (1999) found that it was possible to suffer from both conditions. They report that children with SAD also reported another anxiety disorder. In community studies, Essau et al. (1999) found that most patients reported the existence of somatoform disorders, in addition to other psychiatric disorders, including attention deficit hyperactivity disorders (ADHD) completed (Beidel et al., 1999; Rao et al., 2007). Comorbidity with the neuropsychological condition ADHD has been only lightly

addressed. However, one study with a small sample investigated early language impairment and found that a small amount of SAD prediction was possible (Voci, Beitchman & Wilson, 2006).

There is a high degree of comorbidity of SP with other psychiatric disorders, such as depression. Investigating the relationship between SP and major depression, Stein, Tancer, Gelernter and Vittone (1990) found that 37% of patients with SP had also experienced past major depression Similarly, Weissman et al. (1996) found that 37% of people suffering from SP simultaneously have major depression, while Liebowitz, Gorman, Fyer and Klein (1985) found that almost 50% of patients meeting the *DSM-III-R* diagnostic criteria for SP also have depressive symptoms or major depression. In the case of panic disorder, the rate of having a previous experience of major depression is 30%. High comorbidity rates have also been found in children aged 8 to 14 years between SP, anxiety and depression (Chambers, Power & Durham, 2004). Such findings about children and adults have been replicated in several studies in Arab countries. According to the clinical profile investigation of Arafa et al. (1992), the main comorbid disorder of SP was depression. However, other conditions such as hypochondriasis, anxiety and paranoid ideation were also found, while neurotic and withdrawal characteristics were indicated in the assessment of personality.

Moreover, SP is a common comorbid diagnosis in individuals on the autistic spectrum (Gillott, Furniss & Walter, 2001). There is also comorbidity of SP with mental disorders such as bipolar disorders and affective psychosis (Cassano, Pini, Saettoni & Dell'Osso, 1999; Dell'Osso et al., 2003; Freeman, Freeman & McElroy, 2002). In mental impairment, SP could be a secondary condition (Thomas, Randall & Carrigan, 2003). For example, individuals with autism usually experience difficulties with social interaction. Such situations can trigger socially embarrassing behaviour and a misrepresentation of others' behaviour, possibly related to a psychotic disorder (Bögels & Tarrier, 2004). Similarly, depression can bring about social isolation, which in turn is connected to social phobia (Stein et al., 2001).

Another factor that has been found to have a high correlation with SP is abuse of illicit substances. Clark and McManus (2002) found that adolescents who met the

criteria for SP tended to report alcohol abuse as well. The rate of substance abuse, whether alcohol or illicit drugs, is as much as double in individuals with SP compared to those without SP (Page, Jones & Wilson, 2004; Zimmermann et al., 2004). People with SP tend use alcohol to relax and cope with the anxiety and pressure of the situation.

2.3 Temperament

Also involved in SP aetiology are personality traits and temperament, including fluctuations and intensity of mood, customary strength and speed of response, vulnerability to emotional stimulation and quality of prevailing mood. Caspi and Shiner (2006) argue that such constitutional makeup dependency is largely hereditary in origin. A number of different classification schemes have been devised for temperament (Rimm-Kaufman & Kagan, 2005).

The following section discusses the aetiology of social phobia.

2.4 Aetiology of Social Phobia

The aetiology of SP is presented in three sections: internal factors, environmental factors and cultural factors.

2.4.1 Internal factors

Here, nine types of internal factors are discussed.

2.4.1.1 Genetic predisposition

It is well-established that genetic factors play a significant role in the development of social phobia. One study found that family members are on average more prone to social phobia, suggesting a heritable element to SP (Kendler, Neale, Kessler, Heath & Eaves, 1992). Another study has found high rates of SP within first-degree relatives, while the family nature of SP has been found through a number of other studies (Chapman et al., 1995; Rapee & Spence, 2004; Reich & Yates, 1988). Other research has specified the involvement in SP of the repeat polymorphism in the dopamine transport gene (Rowe et al., 1998). A correlation has been found between

shyness and long forms of the serotonin transporter (Arbelle et al., 2003). However, another study found no correlation between these same receptor genes and shyness in four-year old children (Theall-Honey & Schmidt, 2006). In addition to the genetic aetiology of SP, environmental factors also play a role in SP aetiology.

2.4.1.2 Genetics and social anxiety

Anxiety disorders can arise in unfamiliar settings, when people feel social fears which affect their reactions in normal, daily situations, particularly during childhood and adolescence. Scaini, Belotti and Ogliari (2014) paid particular attention to age and various different fears, such as fear of speaking, reading, dealing in public, attending parties and social interaction. Both genetic and environmental factors were found to contribute to young children's personal and social anxiety. Direct symptoms of severe physical and mental disorders include choking, flushes, chills, palpitations, fainting, shaking and a fear of dying. Brown, McAdams, Lester, Goodman, Clark and Eley (2013) also studied childhood anxiety. They found strong associations between anxiety with the strictness and aggression of families. However, they found that attentional bias scores were not influenced by both genetic and shared environment factors.

Patients who were socially isolated showed deficient social skills as well as dysfunctional attribution styles. They lacked friends, who tended to reject their behaviours both inside and outside the school. Many specialists in the field of psychology and psychiatry tend to diagnose such behaviours as anxiety disorders, separation anxiety disorders and generalised anxiety disorders (Scaini, Belotti & Ogliari, 2014).

In addition, social anxiety can vary with age, from early childhood to late childhood and adulthood, as the expected sequences of positive or negative social, behavioural reactions evolve. Scaini, Belotti and Ogliari (2014) found that patients' recovery from social anxiety can be most clearly seen in the older age groups, especially in those who have had an early diagnosis as well as intervention. However, social anxiety disorder in adulthood can be exacerbated by alcohol abuse, and is associated with a greater likelihood of stress, depression, anxiety, divorce and risk of suicide.

2.4.1.3 Behavioural inhibition

Related to temperament, Kagan (1989) has identified the sole persistent psychological quality in SP to be 'passivity', referring to a subdued, nervous, and fearful demeanour. Researchers are currently exploring the extent to which an inhibited temperament in childhood contributes to developmental or mental-health problems (Gladstone, Parker, Mitchell, Wilhelm & Malhi, 2005). In comparison with children with other anxiety related disorders, SP-affected individuals consider themselves to have much higher behavioural inhibition (van Ameringen, Mancini & Oakman, 1998). An odds ratio of 4:1 has been found for students with a history of childhood behavioural inhibition compared to groups who do not have phobias (Hayward et al., 2000). A correlation between SP in adolescence and inhibition has been established (Schwartz, Snidman & Kagan, 1999). Teenage girls who faced the problem of inhibition in childhood are more likely to present with symptoms related to SP. Adults with SP have typically reported imbalanced childhoods, characterised by inhibition and withdrawal, with few friends (Chaleby & Raslan, 1990). It can be concluded that a psychological tendency towards inhibition in childhood behaviour is related to SP in adolescence and young adulthood.

According to Gray (1970), anxiety is a result of the interplay of punishment and reward mechanisms. Gray (1970) adds that anxiety can arise in response to novelty frustration and non-reward threat. This is observed through continuous inhibited behaviours which negatively affect the person's attention to environmental stimuli and may result in risk-taking behaviours. These non-reward threats and uncertain punishments can lead to sadness, whereas positive effects and rewarded compensations can lead to pleasant feelings of reward, happiness and motivation.

Genetic factors and parental personality have been gauged to moderately influence on social anxiety compared to non-shared environmental factors such as personal traits. Gray (1970) concludes that genetics (biology) and the environment, as well as the person's experiences, influence the onset of social anxiety. Stressors can have a direct impact on the structure of the brain of both males and females, impairing their understanding of daily-life interactions. Parental personality, for example, can

impact on the neurotransmitters in many regions of the brain associated with general behaviours. In his model of personality, Gray (1970) considers behaviour variation to be an integration of biological mechanisms affecting both stable personality traits and the brain's resting state activity in terms of behaviour contextual tasks.

2.4.1.4 Neuroticism

Neuroticism is a personality trait that is defined as emotional vulnerability to stress (Luteijn & Bouman, 1988). It is linked to experiencing worries, negative affects and fifteen other somatic symptoms (Gray & Watson, 2007). Associations have been found between neuroticism/negative emotionality, extraversion/positive emotionality, and mood and anxiety disorders (Watson et al., 2005). Neuroticism has been found to have a heritability of 50% and is related to anxiety disorders among the children (McNaughton & Gray, 2000). Neuroticism is not just a risk factor for SP; it is also concerned with other emotional disorders such as depression and anxiety.

2.4.1.5 Trauma and social anxiety

Trauma has a significant association with social anxiety, especially when it is related to what Seedat, Allgulander, Kidd, Stein and Gardner (2010) call "adverse parental rearing styles", their lack of care for anxiety disorder. Seedat et al. (2010) consider childhood abuse to be a risk factor for psychopathology in adulthood, including panic disorders. A relationship between childhood trauma and social anxiety can also be observed in terms of the parents' marital problems, separation, and family sexual abuse and violence.

Seedat et al. (2010) found a significant association between the two concepts, especially those relating to emotional influences on the development of social anxiety. Emotional events such as excessive tearing, criticism, bullying, rejection and humiliation were found to have a lasting, adverse effect on the patients' futures and careers. Childhood adversity may differ according to environmental changes in violence, crime and poverty. Childhood trauma history can be seen as predictive of adult social anxiety and panic disorders. This study revealed that patients from South Africa, for example, reported higher rates of trauma and sexual abuse as well as emotional and

physical neglect than did Swedish patients. Accordingly, South African samples reported higher levels of social anxiety or panic disorders.

The results also indicated more healthcare concerns of citizens living in developed countries than those who are living in developing countries. In can be concluded that a positive link exists between the experience of trauma and the development of social anxiety.

2.4.1.6 Cognitive factors

In both the aetiology and maintenance of SP, it is vital to consider cognitive factors since negative behaviour is observable in individuals with SP. Individuals with SP usually report greater negative self-evaluation (Clark & Wells, 1995). Similarly, the condition of individuals with SP is usually exacerbated by the extent to which they believe their anxiety is visible to others. They tend to underestimate the extent to which they are interesting and agreeable to others (Voncken, Alden & Bögels, 2006). Perceptions of their negative performance tend to persist over time (Wallace & Alden, 1997).

An investigation of 65 children aged 9 to 13 years found that children with SP symptoms perceived their acceptability to be lower, and showed a higher rate of cognitive errors than same-aged children without SP (Reavis, 2005). A similar study by Cartwright-Hatton, Tschernitz and Gomersall (2005) of children aged 10 to 11 years found a negative correlation between SP and self-performance with the children. Specifically, children suffering from severe SP symptoms are more likely to express thoughts of negative self-evaluation and to pay attention to nervous dispositions. Cognitive-Behavioural Theory (CTB) has incorporated evidence about SP for its psychological interventions.

2.4.1.7 Social skills deficits

Development and maintenance of SP is intensified by deficits in social skills. Peer relations are attributed as social threats or traumas, whether real or imagined, that serve to maintain SP (Kashdan & Herbert, 2001). Individuals affected by SP are

considered by peers as lacking of the necessary social skills. Cartwright-Hatton et al. (2005) suggests that children with SP should be treated carefully and supported in terms of social skills training.

Alden (1997) explains that the increase in self-assessment-related anxiety contributes to negative interpersonal experiences, as well as heightened avoidance behaviours and weak self-efficacy. During childhood, an individual's poor social skills can manifest late due to operant conditioning, from excessive avoidance of social interactions, and the situation is exacerbated by the development of maladaptive cognitive biases. A study of students by Rapee and Spence (2004) regarding social evaluation tasks during SP investigated variables such as social skills, social outcomes, outcome experiences, self-talk and performance self-evaluation. The study found lower levels of performance than expected. It also found higher levels of negative self-talk in social evaluation tasks. Comparing socially phobic children with non-anxious controls, Spence (2003) found SP children to have lower social competence with peers, and to be less confident and less socially skilled, according to self- and other-ratings. Additionally, SP children were found from behavioural observation to have fewer interactions and to speak less with other children. Although these studies of SP could not establish the aetiological direction due to the cross-sectional design, both cause and effect in SP can be found in the case of social skills. This suggests that social-functioning-related activities should be prioritised in intervention programmes.

2.4.1.8 Fear of negative evaluation

Negative self-evaluation is a widely-used measurement of change in CBT, mentioned above (Cox, Borger & Enns, 1999). The fear that surrounds human interaction and performance in social situations for SP individuals is mainly motivated by the desire to avoid embarrassment. Negative interpretations of social information and a persistent fear of humiliation are at the root of SP (Hirsch, Clark & Mathews, 2006). Their assessment of the situation may be accurate although they are rarely treated negatively. They rate their public speaking as poor quality (Abbott & Rapee, 2004).

In comparison with other disorders and non-clinical controls, individuals with SP report more negative social outcomes, was a result of their more negative interpretations of social events (Lusia Stopa & Clark, 2000). A study of social scenarios interpretation by Voncken, Bögels and Peeters (2007) found that individuals with SP tend to interpret the social scenarios they faced more negatively. These results, however, should be read with caution due to an imbalance between experimental and control groups, with including the control sample being significantly smaller than the experimental one.

A study of the connection between SP and attentional bias to social-threatening words study found that individuals with SP tend to be more attentive to socially threatening words (Musa, Lépine, Clark, Mansell & Ehlers, 2003). The study also aimed to determine concurrent depressive disorder effects. It found that those with depressive disorder and SP preferred to avoid the socially threatening words. The possible connection between intentional bias towards physical threat and SP underscores the importance of studying attentional-bias and related comorbidity.

Anxious arousal during interaction stems from self-presentational concerns, including the idea that a negative self-evaluation is forthcoming or that signs of anxiety such as shaking or sweating may be noticeable (e.g., Cartwright-Hatton, Tschernitz & Gomersall, 2005; Clark & Wells, 1995; Kocovski & Endler, 2000; Wells & Papageorgiou, 1998). These concerns lead to increases in self-focused attention (Cheek & Briggs, 1990; Kowalski & Leary, 1990; Leary, Kowalski & Campbell, 1988) that predict participants' anxiety and affect across interactions (Woody, 1996). As self-focused attention rises, the ability to concentrate on social interaction may decline, leading to disjointed social performances (Clark & McManus, 2002; Perowne & Mansell, 2002; Rapee, 1993).

2.4.2 Environmental factors

From infancy, a person's personality traits interact with environmental factors, including the family environment. Children learn social behaviour and about themselves

from interacting with others. This learning process is mediated by life events and other risk factors.

2.4.2.1 Parent/child interaction

In the development of SP, the parent–child relationship plays a vital role. While a memory bias can occur in how individuals recall the style of parenting that they received, individuals with SP usually describe their parents as lacking in emotional warmth, critical and overprotective (Arrindell, Emmelkamp, Monsma & Brilman, 1983). Arrindell et al. (1989) argue that, in comparison with individuals with agoraphobia, individuals with SP tend to perceive their parents more negatively in terms of their parenting style. A negative or neglectful parenting style is reported to have been experienced by 21% of people with SP (Shaw et al., 2006). An investigation of interactions between the three-year-old children and their parents revealed that the expression of shame can be the result of negative evaluation, criticism or the absence of positive evaluations by their parents (Alessandri & Lewis, 1993).

Furthermore, parents of children with SP have been found to be isolated socially, intentionally shunning social situations and behaving in an avoidant manner, based on retrospective studies regarding child-rearing practices. Parents of SP children tend to have problem with SP themselves and, as a result, they are more concerned with their friends' opinions than that of their children (Bruch & Heimberg, 1994). Having parents who are anxious and over-protective means that children are not actually provided with a suitable social growth-friendly environment, and tend to follow a maladaptive social interaction pattern (Brown, Craig, Harris, Handley & Harvey, 2007).

The socialisation pattern and habits of parents with SP means that their children have fewer opportunities to learn about social situations; accordingly they develop negative anticipations of social interactions (Rapee, Schniering & Hudson, 2009), which leads them to avoid social interactions. The avoidance in turn leads them to minimise their opportunities for developing their social skills and meaningful relationships with peers. The negative attitude towards social interactions and related avoidance is invariably transferred from adults to their children. As a result, children unconsciously

start to worry about others' opinions, and feel anxiety about obtaining social approval (Hudson & Rapee, 2002).

2.4.3 Cultural factors

Culture has been defined as the combination of a group or nation's way of thinking, believing, feeling and acting (Swartz, 1997). A group's life is reflected by their culture (Rozin, 2003). Culture is comprised of the language, religion and customs of the group, as well as their feelings and attitudes. Culture can be passed on through parents, schools, society and government. As each culture has a history, events in the culture become part the cumulative history (Pillai & Chaudhary, 2009). Geographical and ethnic boundaries are also known as culture and can distinguish groups from each other. Dimensions that distinguish cultures from each other include individualistic *versus* collective, industrialised *versus* agricultural, and simple *versus* complex (Triandis & Suh, 2002).

The concept of 'culture' is enormously complex. In this respect, Stroh et al. (2002) recommends that in order to understand the term fully, a set of definitions, conceptualisations and dimensions should be used and explained. Ajiferuke and Boddewayn (1970) indicated that the concept has many meanings that defy a single all-purpose definition. Tayed (1994) agreed that it is difficult to define and categorise. Brake et al. (1995) defined culture as the main values, attitudes, beliefs and patterns of thinking of a religion or society. Culture also can provide people with an identity which enables them to relate to each other and participate in norms and practices (Delong & Faley, 2000; Leidner & Kayworth, 2006).

Psychological theory and practice can be applied to minimise or influence the effects of a culture (Berry, 1980; Lewis-Fernandez & Kleinman, 1994; Triandis & Brislin, 1984). Psychological mechanisms distinguish between cultures worldwide (Matsunaga, Kiriike, Matsui, Iwasaki & Stein, 2001; Rapee & Heimberg, 1997; Stein, 1993), and cultural factors can be evident in the expression and experience of SP.

The disorder criteria of SP can differ across countries and yet be similar across cultures. Individualistic and collectivist cultures have been shown to vary in terms of

their values. Whereas an individualistic society treats the lower level of social fear as distressing, a collectivist society considers the higher level of social fear to be distressing. An individualistic society is concerned with one's rights while a collectivist society views a certain level of SP as normal. Thai parents are more concerned about when their children externalise behaviour, whereas internalisation is viewed more positively (Lambert, Weisz & Knight, 1989; Weisz, Sigman, Weiss & Mosk, 1993; Weisz, Suwanlert, Chaiyasit & Walter, 1987; Yeh & Weisz, 2001). Thus, SP is viewed as more of impairment in some societies than in others (Rapee & Spence, 2004).

Research to date on SP has been characterised by conceptual, measurement, methodological, economic and pragmatic constraints, derived largely from Western cultural values. To overcome cultural barriers in the research field, psychological theories need to be tested in cross-cultural contexts. Through such cross-cultural application, understanding of the impact of trauma and other risk factors associated with children can be enhanced.

A psychological or mental health perspective of SP can be complemented with sociological research findings for a fuller understanding of the condition. From a sociological perspective, Saudi culture is known for valuing cultural customs and rituals as well as discipline and compliance with moral codes (Kraidy, 2007). Compliance with even minor social rituals is expected based on age, sex and social status (Al-Hemaidi, 2001). Chaleby (1987) argues that individuals with personality traits that are on the edge of societal norms could be vulnerable in terms of social activities, with implications for both health and emotional adjustment.

Rapid social development, in terms of urbanisation and upward social mobility, is another issue to be considered when analysing Saudi Arabian societies (Dwairy & Achoui, 2006). Increasingly, people are moving to urban centres with modern facilities from rural areas, for example, the Bedouin. These migrations are accompanied by shifts in social values which should be taken into account in any study (Al-Saggaf, 2004). Arafa et al. (1992) found that individuals can struggle with expected norms and expectations in a highly pressurised and aspiring socio-economic environment, which leads to further avoidance of social activities. The potential connection between mental

well-being and socio-cultural factors should be considered, particularly for an issue like social phobia which depends strongly on social contexts.

2.4.3.1 Social anxiety in individualistic and collectivistic countries

It has been found that people who live in a single cultural entity tend to be insulated against social anxiety, whereas South Asian people (Heinrichs et al., 2006; Kleinknecht et al., 1997) who migrated to different European countries tend to be very vulnerable to social phobia (Hong et al., 2007; Norasakkunkit et al., 2002).

The impact of cultural values on social anxiety is significant. Cultural norms are usually studied to find out about the impact (Heinrichs et al., 2006). Different methods are used to identify social anxiety from those used to identify persons who are socially withdrawn. Socially established behavioural norms are used to determine social anxiety among socially phobic people compared with among other people, with the objective of finding out whether they are accepted or not. Cross-cultural study has shown that in collectivist countries, adolescents suffer from social anxiety more than those in individualistic countries. It may be inferred that extremely authoritarian societies with extreme rules and regulations may contribute significantly to enduring social anxiety in adolescents.

The data collected to date do not confirm this view completely. An analysis by Arrindell et al. (2005) and Hofsteade's cultural dimensions applied to social fear and self-reported phobia show that there is no clear relationship between social anxiety and collectivist or individualistic social structures. The study by Heinrichs et al. (2006) shows a different picture, while Hong et al. (2007), Norasakkunkit et al. (2002) and Heine (2000) show that adolescents in collectivist societies, as found in Asian societies, are prone to more self-criticism and thus experience more anxiety than those in individualistic societies. While Asian countries are not necessarily more conducive to social anxiety, Furmark (2002) and Wittchen et al. (2003) show that some of the countries in this region may have low anxiety scores because of their social, cultural, behavioural and ideological structures (Rapee et al., 2004). These heterogeneous

findings suggest that more research needs to be done in this area in order to establish systematic knowledge.

Within collectivist contexts, the literature on social anxiety in adolescents has concentrated on East Asian adolescents. Other collectivist countries which should be included are Latin American and African countries (Heinrichs et al., 2006; Hong et al., 2007; Kleinknecht et al., 1997), but such findings should not be taken as a universal pattern. Allik and McCrae (2004) found that Latin American people share some of the anxiety-related traits found in European and North American peoples. More heterogeneous results were found in countries like Guatemala and Venezuela, where the lowest individualism scores out of eleven countries were found (Arrindell et al. 2005). In these countries social anxiety scores are comparatively lower.

Because this study is located in a cross-cultural context, it is necessary to discuss cross-cultural theories. The most popular theory is advocated by Geerte Hofstede. His Cultural Dimensions Theory aims at systematic investigation of national cultures with a view to discovering the similarities and differences among nations' values and cultures. Based on many years of empirical and rational observation, he developed six fundamental dimensions of values for analysing a country's culture: Power/Distance; Individualism *versus* Collectivism; Masculinity *versus* Femininity; Uncertainty/Avoidance Index; Long Term Orientation; and Indulgence *versus* Restraint. Lugar (2002) argues that these dimensions have great usefulness in analysing the behavioural trends of human beings. The present study uses Hofstede's synthesis of cross-cultural dimensions to examine the paradigms related to social anxiety and its effects on the adolescents in both the United Kingdom and Saudi Arabia.

Individualism vs. collectivism refers to the degree to which individuals are integrated into groups. In individualistic societies, personal achievements and individual rights are the focus whereas in collectivist societies, the focus is on large extended families and loyalty to the group. The relationship between individualistic/collectivist values and social anxiety is not clear and has yet to be identified (Schreier et al., 2010). Heinrichs et al. (2006) found that higher levels of social anxiety occur in people from collectivistic countries than in those from individualistic countries. However, Arrindell

et al. (2005) found no significant association between individualistic countries and social fear symptoms. A review of the literature by Schreier et al. (2010) revealed little evidence of a response style related to collectivistic values that reflects higher levels of social anxiety. From a cross-cultural perspective, evidence is yet to be found that individualism and collectivism are useful analytical lenses for enhancing understanding of social anxiety expressed in different cultures. Even though the vast majority of contemporary research on social anxiety has been based on Western populations, increasing interest has been directed to examining social anxiety from a cross-cultural point of view.

Kitayama, Mesquita and Karasawa (2006) found support for the hypothesis that Japanese culture encourages socially engaging emotions (e.g., friendly feelings and guilt), whilst the USA culture fosters socially disengaging emotions (e.g., pride and anger). They have also shown that Japanese and Americans are chronically motivated towards the very different goals of interdependence (e.g., social harmony) and independence (e.g., personal control), respectively.

The individualism–collectivism dimension has been identified as mediating differences in the expression of social anxiety within two cultures that differ on this dimension (Kleinknecht et al., 1997). Zhou et al. (2008) argue that collectivist Asian cultures might foster feelings of social anxiety to a greater extent than more individualistic Western cultures. In collectivistic cultures, one construes the self as interdependent with one's group, while the individualistic cultures foster an independent construal of self (see Kim et al., 1994; Markus & Kitayama, 1991; Triandis, 1989, 1995). In other words, individualistic cultures, such as North America and many Western European countries tend to define the self as more individualistic or independent. It should be noted that these two culturally-defined views of self are not mutually exclusive (see Singelis, 1994). However, only one tendency seems to be predominant in a given culture.

Reinforcing this trend, it has been widely observed that East Asian and Asian-Americans report higher levels of social anxiety than do European-Americans particularly on measures of emotional distress (Okazaki, 1997). Norasakkunkit and

Kalick (2009) argue that cultural differences in measures of social anxiety do not necessarily represent cultural differences in emotional well-being.

However, only East Asian countries as examples of collectivistic cultures have been included in most cross-cultural studies, while African countries have not been yet compared (e.g., Kleinknecht et al., 1997; Hong, 2007; Heinrichs et al., 2006). To the best of this researcher's knowledge, no study has investigated this issue in Arabic countries. Thus, it seems reasonable to identify whether collectivistic countries such as Saudi Arabia show higher levels of social anxiety than do individualistic countries. To test the link between individualistic vs. collectivistic values and social anxiety, one collectivistic country, Saudi Arabia, is here compared with one individualistic European country, the UK.

2.4.3.2 *Taijin kyofusho* and social anxiety

Taijin kyofusho is a Japanese and Korean culture-bound form of social anxiety. Meaning "offensive type", *taijin kyofusho* (TKS) appears in the fourth edition of the *DSM-IV* (APA, 1996, 2000) and in the *ICD-10*, where it is published as anthropophobia within social phobia (WHO, 1992). According to the *DSM-IV*, *taijin kyofusho* is characterised by persistent and extreme fears of one's physical characteristics giving offense to others in social situations (e.g., blushing, gaze, or one's body odour). Rather than embarrassing oneself, TKS involves the social fear of embarrassing others. Distress to the self is the focus of individualistic communities whereas distress to others is the concerns of collectivist communities (Dinnel, Kleinknecht & Tanaka-Matsumi, 2002). As a personal characteristic of Eastern communities, TKS is associated with a high level of interpersonal sensitivity (Kleinknecht, Dinnel, Kleinknecht, Hiruma & Harada, 1997).

Further characteristics of this culture-bound disorder are a fear of social contact, extreme self-consciousness (concern about physical appearance, body odour, blushing), and the fear of contracting diseases (APA, 1994; Matsunaga et al., 2001). Links have been drawn between TSK in the East and social phobia (SP) in the West. The *DSM-IV* considers TKS to be a case of SP, known also as Social Anxiety Disorder. Similarities have been identified between SP in the *DSM-IV* and TKS, based on their psycho-

biological and phenomenological aspects. This suggests that, while SP is a universal disorder, supported with some clear evidence, cultural variation shapes the expression of certain core mechanisms which might be connected with the social situation and related to self-perception and self-presentation (Matsunaga et al., 2001). According to epidemiological studies, the prevalence rate of SP is high in most countries (Weissman et al., 1996), with a number of features of SP found to be similar between countries, such as age of onset, sex, and psychiatric symptoms (Hollander et al., 1998; Stein, 1993).

The *ICD-10* refers to the fear of social interaction (particularly with friends), extreme self-consciousness (related to physical appearance, body odour, blushing), and the fear of contracting diseases, although it does not describe this offensive variant of TKS. In addition to problems with face-to-face contact, descriptions of TKS include fear related to: (a) offending others by blushing, emitting offensive odours, and staring inappropriately; (b) offending others by presenting an improper facial expression, a blemish, or physical defect; (c) being strongly convinced of having offended others; and (d) being obsessed with feelings of shame (Kirmayer, 1991; Maeda and Nathan, 1999). Thus, the primary feature of TKS is related to the fear of offending others, excluding the criteria described in the *ICD-10*. In Japan, a number of cases of TKS related to the fear of offending were reported (Kirmayer, 1991) while some cases are being reported in Korea (Kasahara, 1988; Lee & Oh, 1999). TKS has been treated as a syndrome which is culture-bound because of paucity of the cases from counties other than Japan and Korea. The possibility of showing symptoms outside of Japan and Korea is, however, becoming more apparent. For instance, TKS has been found in the USA (Choy et al., 2008; Clarvit et al., 1996; Kim et al., 2008). Thus, this syndrome may not be as culturally confined as previously assumed.

The reason for TKS symptoms appearing in cultures outside of Japan and Korea may be attributable to the extent to which individuals construe themselves as independent *versus* interdependent. Self-to-collective relatedness and self-identification with social roles and relationships are highlighted with the interdependent self-construal. In contrast, independent self-construal accentuates individual autonomy, with the self-

perceived as a circumscribed and separate from the collective (Markus & Kitayama, 1991). A number of studies have found a positive relationship between TKS and interdependent self-construal, and a negative relationship between TKS and independent self-construal (Dinnel et al., 2002; Essau et al., 2011; Norasakkunkit et al., 2012). Self-construals have been found to vary between both cultures and individuals (Hong et al., 2001). With various contextual cues, individuals can access various cultural scripts (Hong & Chiu, 2001; Ryder et al., 2011). Thus, those who have interdependent self-construals are more likely to have a fear of embarrassing others with their own behaviour.

Little is known about cases of TKS in other countries, despite many cases being identified in the culture of Japan. Following the correlation between TKS and an interdependent self-construal (related to collectivistic cultures), TKS is understudied where it is expected that the symptoms would be found in so-called collectivistic countries (Kim et al., 1994; Markus & Kitayama, 1991; Triandis, 1989; Triandis et al., 1995). Vriends, Novisnti and Hadiyona (2013) have studied so-called collectivist countries, such as Indonesia (Hofstede, 2001). In Indonesia, it can be expected that the number of TKS cases would be double those in Japan, as the population of Indonesia is twice that of Japan. According to Hofstede's (1980) ranking, Indonesia is 47th among 53 countries with individualistic cultures. Triandis et al. (1986) have found that in nine diverse nations, Indonesia is the least individualistic country.

Within this context, Vriends, Novisnti and Hadiyona (2013) hypothesise that in Indonesia there is an emphasis on authority, social hierarchy, conformity, inequality, supervision and obedience, all of which indicate high power-distance. In social relations, the significance of living together in harmony is highlighted (Hofstede, 2001). Symptoms like TKS have been found in Indonesia; for example, a person has been found who avoids talking about his own feelings of shame and who avoids feelings of shame in others; he was a Javanese father of a schizophrenia patient (Zaumseil & Lessmann, 2007). With respect of interpersonal feelings, Indonesian social emotions were described, with the case in TKS. For instance, the Japanese term for social anxiety refers to "shame," "embarrassment," "shyness," and "respect" (Al Jallad, 2002; Geertz,

1959), while the Balinese term “lek” refers to both “shame” and “stage fright” (Geertz, 1973; Keeler, 1983), covering social anxiety, negative feelings and anxiety surrounding proper social performance in the face of authority, along with the desire to avoid negative confrontation related positive feelings. Additionally, it is a Javanese social convention to interact harmoniously and politely in face-to-face contact (Keeler, 1987) and to respect others, keeping one’s opinions to oneself and being indirect with words and actions (Mulder, 1992). A failure to maintain harmonious relationships is considered shameful. The Indonesian term “malu” refers to both the violation of personal norms and a recognition of status inferiority. In contrast, poor self-esteem and violations of personal norms are known as “shame” in Western societies (Budden, 2009; Fessler, 2004).

2.5 The Impact of Culture on Social Anxiety

Socially anxious individuals may develop different types of disorders which prevent them from becoming socialised and reciprocally connected. They cannot participate in the social functions because of their extreme self-centeredness (Spurr & Stopa, 2002). Cognitive models corroborate that self-centered persons tend to be highly affected by social anxiety (e.g., Clark & Wells, 1995; Rapee & Heimberg, 1997).

Due to psychological disorder, the cognitive processing of socially anxious persons is biased, leading to unsound information processing. While research has been conducted on the processing of incoming information (Clark & McManus, 2002; Heinrichs & Hofmann, 2001), it has ignored the broader cognitive context in analysing the socially phobic. More research must be undertaken to determine how socially phobic individuals perceive their physical and social surroundings.

Sex-based study of social phobia is an important paradigm. Research has shown that both males and females experience the same social-phobia traits but women are more vulnerable to social phobia (Kessler et al., 1994). Another study shows that men are very concerned about their phobia and are quicker to seek treatment than are women (APA, 1994). More sex-based study will give us substantial information about the parameters in which men and women operate.

Self-construals can be used to determine how a person becomes involved with others in different contexts of social functioning. In the USA, individuals are supported to establish their own world with complete self-control (Markus & Kitayama, 1991). This social construct enables the self and others to be clearly defined, and it clarifies the individual's codes of assimilation into social life. In contrast, in the Asian context, social and cultural structures are built in such a way that everyone has to live for others. Individuals are guided by others in every sphere of life. As part of a society, the individual is connected as to a collective body with all the social and cultural organs. Thus, a person in this context cannot identify his or her own identity; rather they are expected to live with harmony with others through innumerable compromises.

Research has found that interdependence can have a positive influence because in a collectivist society, a person can alleviate his or her social tension by mixing with others (Singelis & Sharkey, 1995). Conversely, independence may be a negative influence if it leads a person to polarise the self through alienation from the surrounding society. In such a context, the person becomes immune to social sensitivity and awareness. They face different types of social anxiety which a person in a more interdependent culture may avoid through connectivity (Dinnel, Kleinknecht & Tanaka-Matsumi, 2002).

Interestingly, Moscovitch et al. (2005) found a different correlation between interdependent and independent social structures, and social anxiety. They hypothesised that men in interdependent cultures suffer from more social anxiety than those in independent ones. For understanding individuals' experience of social phobia, they advocate using self-discrepancy theory (e.g., Alden, Mellings & Ryder, 2001; Baumgardner & Brownlee, 1987; Carver & Scheier, 1981; Duval & Wicklund, 1972; Higgins, 1987; Leary, 2001). According to self-discrepancy theory, social anxiety results from the disparity between what people feel they can do and what is expected of them. When this disparity is large, the person develops social phobia (e.g., Alden & Wallace, 1991; Strauman, 1989; Weilage & Hope, 1999). In many contexts, boys are expected to attain independence and girls' interdependence (Cross & Madson, 1997a, 1997b). Moscovitch et al. (2005) argue that self-evaluation and social expectations are

interdependent. They show how Caucasian-American men became socially phobic because they wanted to be independent in a situation where they could not properly define their potentialities. Conversely, women who want to be interdependent are expected to ignore their own parameters of self. In the dominant cultural paradigm, both men and women suffer from social anxiety because they cannot properly internalise the social norms. Gilbert (2001) argues that socially phobic individuals are poor competitors in their socio-cultural environments.

2.6 Validation of Instruments across Different Cultural Groups

There are many reasons why a psychological test can be flawed (Samuda, 1998). The norms for which the tests have been designed have to be considered carefully. Norms could be based on factors such as age, sex, occupation or economic status. Tests cannot be administered to a population that is different from the norm population. For example, a test designed for adolescents cannot be administered on senior company managers or vice versa because the results of such administration would be faulty. Tests which are not culture-fair may also be flawed. Many psychological tests have been designed for Western populations and cannot be used appropriately on other cultures. There is a lack of information on the validity and reliability of relevant research instruments in Saudi Arabia. Language and cultural differences between English and Arabic and the United Kingdom and Arabic countries, respectively, make questionnaire translation difficult, and there is a risk that even those health questionnaire items that have been translated into Arabic are unreliable.

As Berkanovic (1980) notes, adequate levels of instrument reliability might not be achieved when the instrument is translated; predictive relationships among the variables in one language may not be replicated during the translation process. Moreover, neither metric equivalency of translated measures nor that a given metric has the same meaning in a different culture should be assumed (Okasaki, 1995). Abdel-Khalec and Soliman (1999) point out that the validation of instruments across different cultural groups is critical for ensuring the sensitivity of the measures to cultural variance in terms of the prevalence mental health difficulties, needs and interventions. Traube et

al. (2010) argue that the information provided by psychological questionnaires is critical for making diagnoses in individuals with mental health disorders, as well as for identifying those disorders that require immediate intervention. Draguns (1990) questions the validity of using instruments that are strongly rooted in Western culture in cross-cultural studies. There is a need to increase attention paid to assessment methods across different cultures (Okasaki, 1995).

2.7 Social Anxiety in Collectivistic Countries

This section addresses social anxiety specifically within the context of collectivistic societies**.**

2.7.1 Sex and age in cross-cultural contexts

Any study of cultural differences should include consideration of sex and age. A study of US college students found that sex plays an important role in determining the relationship between social anxiety and self-control. A negative relationship between social anxiety and self-construal was found in males, whereas a positive relationship was reported in females (Moscovitch et al., 2005). Age is similarly important in determining the relationship between social anxiety and self-control in both collectivist and individualist countries (Heinrichs et al., 2006). Community studies have indicated that social anxiety is a constant experience of women and children (Furmark, 2002). These findings suggest that sex and age must be taken into consideration when researching social anxiety in children in cross-cultural contexts with different social norms.

In Western cultures, men tend to be more worried and anxious than women, and especially male adolescents living in collectivist Western and Eastern societies. Adolescents from Eastern societies living abroad in Western societies regulate their emotional processes differently without expressing their feelings of anxiety (Dwairy et al., 2006). They tend to succeed in school for the sake of getting work opportunities, and this puts pressure on their levels of anxiety. Similarly, Peleg (2002, 2006) found that male Arab adolescents have high levels of social anxiety.

Markus and Kitayama (1991) and Singelis (1994) found that the values, norms, practices and corresponding socialisation goals differ between East Asian and Western groups. They added that Western societies value autonomy, uniqueness, personal rights and achievement. Clark (2001) notes that individualistic values bring about Western standards of social behaviour such as assertiveness, effective communication and competitiveness.

Chen (2000) and Nisbett (2003) found that children in Western societies are more socialised and competent to achieve positive perceptions of the self than their counterparts in Eastern societies, because of differences in cultural values. Okazaki (1997) holds that the East Asian goal of socialisation is reflected in their collectivistic values to maintain interpersonal harmony, social cues, judgements of others and emotional restraint. Social anxiety in Eastern societies is often conveyed through eye-gaze aversion, low levels of assertiveness and a propensity to silence (Baker & Edelmann, 2002; Beidel & Turner, 1999). Western theorists describe these behaviours as anxiety-driven and with the purpose of protecting the self from rejection (Clark & Wells, 1995).

Integrating these lines of research suggests the possibility that Eastern norms for social behaviour might overlap with the Western construct of social anxiety. From this perspective, adolescents may endorse questionnaire items about social anxiety because behaviours that are associated with Western social anxiety are more normative in Eastern contexts.

2.7.2 Cultural background of social anxiety among Arab adolescents

In the cultural context of Arabian countries, adolescents are arguably not free from collectivist perceptions of society. Because of their extreme loyalty to family (Khattab, 2003; Peleg, 2010; Peleg, Klingman & Nahhas, 2003), they cannot exercise their freedom in attaining their own autonomous integrity. In Arab societies, honour is in constant symbiosis (Lev-Wiesel & Alean, 1999) with the social, political, cultural and ideological spheres. Minority groups in Arab countries are reported to suffer from social phobia to a greater extent than the larger community, for example, minority

groups in Israel suffer from higher social phobia than the larger community (Peleg-Popko et al., 2003).

2.7.3 Social phobia among students in Arab countries

Various studies have found that social phobia triggers negative evaluation by others (Stein et al., 2005), with adverse consequences for the individual's educational and professional careers (Verger et al., 2010). It also affects their interpersonal relationships and reduces their quality of life (QoL) (Olatunji et al., 2007). Studies on SP are rare even in developed countries. A study on social phobia in high-school students was conducted by Al-Hinai et al. (2006) in two different Arab countries. In the United Arab Emirates, the percentage of socially phobic students was 7.8%, while in Egypt, it was 13%. Other researches show that social phobia reduces QoL significantly (van Ameringen, Mancini & Farvolden, 2003) and, as argued above, social norms also play an important role in triggering social phobia in individuals. Lack of relationships with others can be a catalyst for social phobia (Olantuji, 2007). It affects the social functioning of sufferers (Olatunji, Cisler & Tolin, 2007) but proper treatment can lessen its negative impacts (Keller, 2006).

2.8 Social Phobia in Saudi Arabia

In Saudi Arabia, most of the research papers published are in Arabic with very few in English. An analysis of these research studies reveals that social phobia has been investigated in terms of: parenting style, other disorders, personality traits, or evaluation of therapeutic interventions. Common variables studied include sex, age, academic achievement and the economic status. The outcomes of these studies are most relevant when compared with findings from the West. As far as can be ascertained, no studies have yet been published in Saudi Arabia on the mental health of children or adolescents. The above review has dealt mainly with English publications, thus only the related issues are presented in this section. An initial Saudi study was published on emotional disorders in adults, by Chaleby (1987), based on an out-patient clinic sample. The researcher found the rate of social phobia among adults is around 13%. This sample was, however, mostly male, unmarried, with a relatively highly socio-economic status.

Another study by Chaleby and Raslan (1990) conducted in Saudi Arabia found that SP was highly comorbid with other mental health disorders. The sample was from a private and specialised hospital setting, and based on self-selection, following other service-based studies.

Afara et al. (1992) conducted a third study which replicated previous findings about the high prevalence of SP in Saudi Arabia. A comparative study was conducted by Al-Khodair and Freeman (1997) comparing SP in two countries, Scotland and Saudi Arabia, in terms of treatment age, illness duration, co-morbid panic disorder, alcohol problems, depression and situations related to society. The course of the disorder and assessment age differed between the two. The Saudi sample showed a younger age of onset and shorter duration of the disorder, while the Scottish sample had significantly higher anticipatory fears, more panic attacks, more agoraphobia, and a greater history of depression, alcohol abuse, and usage of psychiatric drugs. Saudis felt more comfortable with younger aged people whereas there was no such effect in the Scottish sample. This suggests that SP is affected by cultural factors.

A study has been conducted to determine the relationship between depression symptoms and the severity of the SP in a predominantly male, clinical sample (Bassiony, 2005). It was found that 59% of the patients with SP also had other psychiatric disorders. Of those, 41% had depression, while 92% developed depression after developing SP.

A study of an aetiological model of SP and other related phobias in Saudi Arabia was conducted by Al Zahrani (2007). Negative evaluation and victimisation were found to be important reasons for developing social phobia in early life as well as in in later life. Another study, of Saudi psychiatric out-patients, to examine the demographic, prevalence and clinical characteristics of SP over a period of one month was conducted by El-Tantawy, Raya, Al-Yahya and Zaki (2010). Social phobia of one month's duration was found in 5.63% of the sample. Compared to major depression, higher rates of dysthymic disorder have been found among SP patients, while low levels of extroversion and higher level of neuroticism were also found in these patients.

2.8.1 Outcome and prognosis

Lower recovery rates and poorer outcome have been linked with an earlier age of SP onset (Davidson, Marshall, Tomarken & Henriques, 2000; DeWit et al., 2005; Mersch, Emmelkamp & Lips, 1991). Adult patients with SP tend to have co-occurring personality disorders. Angst (1993) has found other anxiety disorders co-occuring with SP, while Chartier et al. (2003) found that SP co-occurs with mood disorder. Body dysmorphic disorder can be an additional cause of social avoidance and when it co-occurs with SP it might hinder improvement in mental health. SP might appear as a life-long problem with fluctuations in its severity (APA, 1994). Supported by clinical investigations, several studies have stated that the recovery possibilities for SP are less than those for other anxiety disorders (Bruce et al., 2005; Yonkers, Bruce, Dyck & Keller, 2003). Additionally, studies using retrospective data, and cross-sectional population studies, support the view that SP has a long-lasting course (Chartier, Walker & Stein, 2001; Davidson et al., 1993; Ruscio et al., 2008). On the other hand, some studies have suggested a better prognosis of spontaneous recovery (Degonda, Wyss & Angst, 1993; Vriends et al., 2007). However, no long-term study has been conducted with children.

2.9 Interpersonal Consequences of Social Anxiety

Individuals with social anxiety worry about social outcomes, and these worries manifest in behaviour (Leary & Kowalski, 1995a) which may have far-reaching implications for social outcomes. The anecdotal observation that non-anxious people experience interactions with socially anxious people as “odd” or “off” (Barlow, 2002) has spurred a body of work aimed at understanding the social consequences of social anxiety. Much of it has focused on acute arousal and anxiety-related cognitions experienced by people with the disorder. Less is known about the intrapersonal aspects of social anxiety which have interpersonal consequences, such as how the experience of interaction affects how relationships develop.

Although individuals with social anxiety are motivated to avoid self-disclosure (Clark & Wells, 1995), it may be the case that self-focus interferes with this desire,

particularly in unstructured situations in which participants' behaviour is not guided by explicit rules. For example, studies have shown that anxious individuals disclose less in structured situations designed to elicit disclosure (DePaullo, Epstein & LeMay, 1990; Meleshko & Alden, 1993), although naturalistic studies have failed to replicate this finding (Reno & Kenny, 1992; Thompson & Rapee, 2002).

One reason for the discrepancy may be that shy or anxious individuals are less likely to direct conversation during naturalistic social interactions (Pilkonis, 1977). Reticence to do so may have paradoxical effects, in that those who fail to direct conversation may find themselves answering more questions and revealing more personal information than they would like to.

Another consequence of self-focused attention may be increased awareness of anxious arousal. To allay this anxiety, socially anxious individuals report engaging in actions designed to forestall the occurrence of feared social outcomes (Clark & Wells, 1995; Wells, Clark, Salkovskis & Ludgate, 1995). One such anxiety-regulation strategy may be to engage in "checking" behaviour to ascertain the likelihood of a feared outcome (Mennin, Heimberg, Turk & Fresco, 2002). Excessive worry, along with the perception that outcomes are controllable, both elements of social anxiety (e.g., Leary & Kowalski, 1995b), has been related to compulsive checking in generalised anxiety and obsessive-compulsive disorders (Mennin et al., 2002). In addition, one might expect individuals with social anxiety to seek affirmation or reassurance at higher rates than non-anxious individuals.

Another aspect of social anxiety which need more disambiguation in the literature is the inadvertent communication of stress in SP individuals. Individuals with social anxiety may inadvertently communicate the distress of which they are so keenly aware (Keltner & Haidt, 1999). Fidgeting, for example, signals psychomotor agitation (Okazaki, Liu, Longworth & Minn, 2002) and may be elevated in individuals with social anxiety. Frowns also indicate negative affect (Ekman, 1992) and may, therefore, be elevated. Moreover, general anxiety is associated with reductions in smiling (Field et al., 2005; Yovetich, Dale & Hudak, 1990).

In sum, the effects of self-focus in social anxiety may lead to a subtle reinforcement of anxiety-related cognitions. Studies suggest that willingness to engage in a future interaction with someone is related to that individual's interpersonal behaviour, including communication of positive emotion (Berry & Hansen, 1996), and the degree to which interaction is perceived as being smooth and coordinated (Cappella, 1997). If the presence of social anxiety disrupts these aspects of social behaviour, individuals with social anxiety may inadvertently provoke the very negative perceptions that they seek to avoid.

2.10 Social Anxiety and Quality of Life

When children suffer from social anxiety, they are seen to be very vulnerable in different performance situations. Subject to impaired social functioning, they suffer more than a person with normal behaviour (Liebowitz, Gorman, Fyer & Klein, 1985; Schneier et al., 1994; Turner, Beidel, Dancu & Keys, 1986). Their educational career may be poor and they may show poor job performance (Schneier et al., 1994; Stein & Kean, 2000; Wittchen, Fuetsch, Sonntag, Muller & Liebowitz, 1999). A social anxiety disorder may develop, which may include anxiety about being married (Schneier, Johnson, Hornig, Liebowitz & Weissman, 1992). In addition, a person with social anxiety disorder tends to depend more on medical services and other welfare institutions than those without this order (Davidson, Hughes, George & Blazer, 1993; Schneier et al., 1992).

Cognitive-behavioural therapies are strongly linked with life satisfaction as CBT can determine the person's cognitively-mediated interpretations, shaped by their own paradigms. Application of cognitive-behavioural group therapy (CBGT) can improve the quality of life of the person suffering from social anxiety disorder (Safren, Heimberg, Brown & Holle, 1997).

Given that CBGT can improve the life satisfaction of those suffering from social anxiety disorder; it may be questioned to what extent it can impact on the global index of life satisfaction (Eng et al., 2005). Life satisfaction may differ from place to place depending on parameters used to measure it, such as work functioning, interpersonal

functioning and health. Due to individual satisfaction levels in each domain, the combination of individual scores may be different to the totality. Development in a particular domain may affect that in another domain without effecting substantial changes in the remaining domains; more analyses are required regarding CBT to disambiguate the relationships between the different domains. Social Anxiety Disorder (SAD) is associated with diminished quality of life (QoL) (Stein et al., 2000; Wittchen et al., 2000), both in terms of the individual's subjective and objective views on the satisfaction of life.

2.10.1 Quality of life of individuals with social phobia

Those with SP often have difficulty adjusting to societal institutions, such as marriage, parenting and family (Peleg-Popko & Dar, 2001; Wittchen et al., 2000). They are afraid of assimilating and affiliating themselves with other members of society. Thus they become alienated and self-centered. Usually financially less independent than their healthier counterparts, they often have to depend largely on different social supports because of their meagre income and poor education (Kessler et al., 1994; Schneier et al., 1992). Experiencing a life time of psychiatric trauma (Chavira et al., 2004; Moscovitcha et al., 2005), they are likely to abuse substances (Hugh & Kathleen, 2003; Marshall, 1994). All of these negative attributes can contribute to poor mental health in a person with social phobia (Beidel et al., 2007; Katzelnick et al., 2001).

With a view to getting an accurate picture of the socially phobic person's health, their quality of life should be taken into consideration. There are various ways of measuring the quality of life (QoL) (Gladis et al., 1999). One way is to take the individual's subjective views into consideration regarding QoL (Mendlowicz & Stein, 2000). Subjective views include perceptions of social relationships, physical health, functioning in daily activities and work, economic status, and an overall sense of well-being (Patrick & Erickson, 1988). Individuals considered to have low quality of life are those with depressive disorder (Pyne et al., 1997), those with obsessive-compulsive disorder (OCD) (Koran et al., 1996), and those with panic disorder (Rubin et al., 2000). In addition, other forms of anxiety and affective disorders are associated with a poorer quality of life.

However, the quality of life among those with social anxiety has not been well studied (Schneier et al., 1994; Wittchen & Beloch, 1996). The studies undertaken to date show that social phobia causes physical, social and psychosocial impairments in a person. Quality of life is linked with the severity of social phobia (Safren et al., 1997). As observed by Antony et al. (1998), SP affects the daily functioning of a person and thus hampers the attainment of a good quality of life. The world they live seems to be an illusion to them, and it can be difficult for them to fulfil their potentialities in this environment.

2.10.2 Life satisfaction in students with social anxiety

Social anxiety and quality of life are inextricably related, with an inverse relationship between the two. The human tendency is to achieve life satisfaction by fulfilling the demands of life (Tariq, 2011). Although Mahmoud (2011) espouses a different view of the relationship between life satisfaction and social anxiety, it can be universally accepted that these two variables have a reciprocal relationship. Level of life satisfaction is determined by the cognitive evaluation of life's demands (Diener, Suh, Lucas & Smith, 1999) as required in a particular cultural context. This definition is also espoused by Diener and Biswas-Diener (2008) who hold that life satisfaction refers not only to the material necessities of life but also to abstract elements such as interpersonal relations. Because social anxiety works as a barrier to meeting the demands of life (Ledley & Heimberg, 2006; Mattick and Clarke, 1998), it can be said that life satisfaction and social anxiety are contrasting forces within an individual.

2.11 Social Interaction Anxiety among Adolescents

In the USA, Europe and New Zealand, the estimated rate of social phobia ranges from 0.5 to 11.1% (Feehan et al., 1994; Wells et al., 2006). Adolescents with social anxiety usually suffer from impaired psychosocial functioning, disruptions in social development and interaction skills, poor academic performance, depression, and substance use (Inderbitzen-Nolan & Walters, 2000; Strahan, 2003).

Social anxiety in adolescents may be related to the socio-economic status of the family (Costello et al., 2003; Canino et al., 2004). A study in the Netherlands by van Oort et al. (2011) shows that parents with low income may impose social anxiety on their adolescent offspring directly or indirectly. This has been found to occur in different age groups (Harter, 1982; McCauley et al., 1999). Financial means can contribute to a person's self-esteem which plays an important role in developing one's personality. Lack of self-esteem is also found to be a prominent factor in giving rise to anxiety, and this anxiety can be reduced when the individual fulfil other demands in their social and cultural paradigms (van Oort et al., 2011).

2.11.1 Emotions involved in social anxiety and social interaction

Studies have shown that people with SP suffer from being negatively evaluated in the different social situations to which they are exposed (Morrison & Heimberg, 2013). They fear that they will be rejected if their flaws are uncovered, so their anxiety level begins to increase. The emotion of anger has been found to contribute to social anxiety (Peng et al., 2011), although anger in relation to social anxiety has not been as well researched as other risk factors (Nigg, 2006; Keeley & Storch, 2009). People with SAD cannot identify their own emotions, unlike their healthy counterparts, and they also cannot describe them, unlike those with generalised anxiety disorder (Turk, Heimberg, Luterek, Mennin & Fresco, 2005).

According to Kashdan and Farmer (2014), social interactions are experienced as stressful to the socially phobic. They therefore struggle to determine the primal emotions of happiness and sadness. They live in their own world, paying little attention to the world around them, and their particular interpretations are constantly opposed by 'reality'.

People with SP struggle to adapt themselves to social situations as they are afraid of social failure (Schlenker & Leary, 1982). Their cognitions compel them to avoid social situations (Clark & Wells, 1995). They begin to anticipate upcoming situations and over-emphasise the anxiety-related factors, suggesting biases in cognitive appraisal (Goldin, Manber-Ball, Werner, Heimberg & Gross, 2009). They are not able

to discriminate between different unpleasant states and try to avoid them. They are unable to use cognitive reappraisal as effectively as their healthy counterparts (Werner, Goldin, Ball, Heimberg & Gross, 2011).

In addition, they tend to consider positive emotions as threatening (Turk et al., 2005). Thus, people suffering from social phobia develop the tendency to cancel both positive and negative emotional paradigms, using cognitive mechanisms to avoid social situations. These coping methods are ineffective (e.g., Farmer & Kashdan, 2012; Kashdan, Morina & Priebe, 2009; Kashdan & Steger, 2006) because the individual rejects the ways of perceiving and responding to emotions, both positive and negative.

Medical study shows that individuals suffering from social phobia have different types of symptoms such as blushing, tremors, sweating, muscle tension, palpitations and gastro-intestinal discomfort (Beidel, 1998; Beidel et al., 1991; Turner et al., 1986). To avoid these situations, those suffering from social phobia tend to avoid all social functioning (Ballenger et al., 1998) and thus cannot develop their social interactions.

2.12 Summary

The literature reviewed in this chapter indicates that patients with social anxiety significantly reported their quality of life to be poor and negatively related to social anxiety. Previous studies reported that the age of onset of social anxiety has been found to be late adolescence or early adulthood. In the remainder of this section, less is known about the intrapersonal aspects of social anxiety which have interpersonal consequences, such as how the experience of interaction affects how relationships develop. In this chapter, a number of factors were shown to increase the risk for having social anxiety during adolescent's stage. Thus, highlighting the importance of considering interaction between adolescents and their environment was discussed in this chapter. The next chapter discusses the background of Saudi Arabia.

CHAPTER THREE

3 BACKGROUND OF SAUDI ARABIA

3.1 Overview

This chapter highlights the background of the largest part of the Arabian Peninsula which is occupied by the Kingdom of Saudi Arabia. This is a point of worldwide attention with two important sites of Islam: Makkah and Medina. The country was founded as a state of religion (Al-Rasheed, 2002), with Islamic preaching by the Prophet Mohammed beginning in Makkah. Saudi's people are almost all Muslims. According to a 2010 official report, the population in Saudi Arabia was 27,136,977, including 18,707,576 Saudis and 8,429,401 non-Saudis. The growth rate is 3.2% per annum (Ministry of Economy and Planning, 2010). This is a large country, of 2,217,950 square kilometres (Niblock & Malik, 2007), and it includes variety in geography and climate, although a major characteristic is the desert climate (Niblock, 2006).

3.2 Saudi Arabian Society

Saudi society is based on the extended family. The family is usually comprised of the couple and their unmarried offspring along with their married sons- and daughters-in-law and grandchildren (Yamani, 2000). In a short period, Saudi society has seen rapid changes and development. The economic and social changes have impacted on the family with implications for society (Almalki, FitzGerald & Clark, 2011). Extended families were dominant in the pre-oil society. However, this influence is now declining in urban areas. Large parts of the population from rural areas, such as the Bedouin, have already moved to inner-city areas in order to access education and employment opportunities along with intention of getting better services. With the move away from traditional family systems and social networks, people are increasingly setting up smaller families in urban areas as a result of the geo-demographic changes (Al-Khateed, 2008). Individual property ownership has increased due to the decline in

extended families (Rawas, Yates, Windsor & Clark, 2012). The separation of work and home life has severely disturbed the functions of family in educational, religious and community domains compared with the traditional family system. Moreover, productive capacity and the currency are not as stable as they were before (Al-Khateeb, 2008). Determination of one's social status was influenced by the family name. However, today a good education and job, and social networks influence the patronage system (Esmaeili, 2009).

3.3 Social Phobia and the Role of Women in Saudi Society

Economically and politically, Arab and Islamic society offers few opportunities for their women (Douki, Ben Zineb, Nacef & Halbreich, 2007) although the holy Quran emphasises the care and protection of women in Islam. How men and women should come together is described by the holy Quran as follows: "They are a libaas [protection] for you and you are the same for them", while Allah is said to say: "And among his signs is this that he created for you wives from among yourselves that you may find repose in them, and he has put between you affection and mercy" (Sûrat Al Rum, 30:21). Protecting and beautifying one another is also mentioned here, as well as supporting, working and acting on behalf of the other (Al-Sadlaan, 1996). Thus, women in Islamic society should be treated according to these prescriptions. In the traditional system, men usually provide financial support to their family by working outside the home, while women work in the home and take care of the children and house. They also provide emotional support to their husbands (Fargues, 2003). However, recent socio-economic changes have transformed these roles such that women are now engaging in the main work force at an increasing rate (Metcalfe, 2008).

Economic, political or social spheres in Saudi Arabia have been affected by rapid development of the oil industry along with recruitment of labour from Western and other Arabic countries. The construction industry has expanded and lifestyles are increasingly diverging (Hamdan, 2005). The communication revolution including the internet, satellite broadcasting and Gulf war has initiated further changes. Finally,

change can be seen in media discussion regarding women's rights and their presence in male-dominated jobs (Jamjoom, 2010).

Indicating that their lifestyle is changing, women are already in the process of gaining various freedoms such as the vote, driving their own cars and travelling alone in neighbouring Arab countries (Omair, 2008). However, there is still not complete religious and cultural approval of the changes in roles of women in Saudi Arabia, which are proving different from those of other Arab countries. Despite work in banks, hospitals and schools there is a social conflict concerning women working with men (Basaffar, 2012). Contacting male colleagues via telephone, e-mail and internet is observed and separate working areas are in place. Thus, the role of women is largely marginal (Hilsdon & Rozario, 2006). Women are denied employment opportunities following the lack of freedom and strict Islamic code. The occupations popular with females are over-subscribed (Omair, 2008).

Similar sex segregation applies in social affairs. They can meet other women in shops, cafés, restaurants and clubs provided they are with a male relative (Vogel, 2000). As argued in chapter one, socio-cultural contexts affect the symptoms or attributes of social phobia. Western media portray shyness in women as an undesirable quality or a sign of oppression, whereas Islamic and Arabic society considers this a positive quality (Al-Khodair & Freeman, 1997). Birenbaum and Nasser (2006) found that in some Arab countries, girls are considered a liability and boys an asset. Dependency and obedience are considered to be important feminine attributes in Arabic tradition, during their upbringing. In rural areas where the Bedouins live, it is believed that the function of women is to produce and take care of their children (Hamdan, 2005). This situation is changing. Rising numbers of educated women are changing the limited role of women in the family and society (Doumato, 2003), with more women enrolling in education, joining the work force, and participating in decision-making processes in public and private sectors (Al-Ahmadi, 2011) – education and employment being the main tools of empowerment and active participation (Hilsdon & Rozario, 2006). A gradual but steady development in women's empowerment is evident nowadays in that many high-level positions are now being occupied by women (Basaffar, 2012).

Despite the growing participation of women in the male-dominated and patriarchal society of Saudi Arabia (Omair, 2008), changes in domestic work are negligible. Shopping and supervision of children's homework, previously conducted by men, are now included in women's family tasks (Douki et al., 2007). In Saudi Arabia and other Arab countries, women need to seek permission from their guardian or husband to travel overseas (Metcalfe, 2008). Migration from rural to urban areas is also influencing societal rules (Calvert & AlShetaiwi, 2002).

Sociological research has been conducted on societal attitudes in Saudi Arabia. Men usually are considered to hold the tribal and patriarchal powers of decision-making (Hamdan, 2005). Now, women are taking part in decision-making processes which were exclusively limited to men in the past (Al-Ahmadi, 2011). Two broad attitudes exist in Saudi Arabian society. Part of their community wants their women to participate in education, employment, driving and politics by following rules of Islam to bring out changes in the customs and norms of society (Basaffar, 2012). Another part believes that women's rightful place is in the home, being protected and guided by men. These two different views are influencing laws and implementation of social changes in everyday life (Jamjoom, 2010).

As Saudi women are traditionally shy and religious, it is relevant to link the above sociological perspective with their mental health, to determine which interpersonal or social situations are related to anxiety (Al-Khodair & Freeman, 1997). Although women there do not have much exposure to such situations, feminine shyness can be interpreted as anxiety. In daily functioning, women might not consider that their anxiety is having an impact on themselves (Ahmed & Alansari, 2004). Little is known about women's anxiety in Saudi culture compared to men's. Existing findings about parenting capacity and psychopathology need to be applied to the Saudi context. The following section discusses the mental health related services provided in Saudi Arabia.

3.4 Young people Mental Health Problems and Services in Saudi Arabia

As in other Arab countries, many Saudis have limited awareness about mental health and related services, which have developed slowly (Abolfotouh, 1997; Al-Krenawi & Graham, 2000; El-Islam, 1982). Comprehensive epidemiological substantiation of the prevalence of psychological health problems is required for the establishment of service related to mental health. Saudi children are not commonly referred to psychiatric services, but when they are, usual reasons include behavioural and emotional problems; a family history of mental illness; lack of established organic causes for physical symptoms; difficulties in adjusting to chronic or recurrent illness; and suspected abuse or neglect (Al-Haidar, 2003).

In Australia, one in six secondary school students (18%) has been diagnosed with psychological distress (van de Ven et al., 2002), whereas in the UK one in ten children has mental health problems (Ford, Goodman & Meltzer, 2003). According to a study by WHO (2002), around 10% to 20% of the children have at least one mental health problem. For adults, almost half have been identified with onset of symptoms in childhood. For adolescents, there is evidence that stress levels are rising (Al-Gelban, 2007; Brooks, Harris, Thrall & Woods, 2002; Pollock, Rosenbaum, Marrs, Miller & Biederman, 1995).

The Saudi population has a high percentage of young people. According to the Ministry of Economy and Planning (2010), 47% of Saudis are under the age of 15 years, 60% are under the age of 30. It was found that 8.3% of students (94.4% being children and 5.6% adolescents) suffer from emotional and behavioural problems (Abdel-Fattah et al., 2004). This finding is consistent with other studies in low/middle income and Western countries. There is a dearth of psychiatrists and general practitioners with mental-healthcare training (Al-Faris et al., 1997).

According to the Ministry of Health (MOH) in Saudi Arabia, primary health care centres give referrals to general or specialist hospitals, to diagnose and treat health conditions, especially chronic and widespread ones such as cancer, heart disease,

diabetes, obesity and psychiatric disorders. The number of primary health care centres has been increasing in all areas of Saudi Arabia and there are now 2,094 centres (MOH, 2009). The doctors and healthcare staff are trained to provide services in these centres. Specialists from abroad are recruited and scholarships awarded to specialists. Twenty-one specialised mental health hospitals across the Kingdom have initiated mental-health service improvements (MOH, 2009). As there are not any specialists for child and adolescent mental health, they are usually referred to the psychiatry departments with adults.

3.5 Saudi Arabian Culture

An essential objective of this section is to clarify the meaning of the term "culture" and its implications for Arabic countries and Saudi Arabia in particular. In this respect, it may be asked whether organisational culture differs between countries. Hofstede's cultural dimensions are not used individually but apply to the analysis of norms, for example, of Arab countries. The findings of the present study should contribute to our understanding of how the culture in influences social performance and evaluation, and how interpretation of social interactions can be modified so that they have less negative effects.

3.6 Political, Legal and Economic Framework

Saudi Arabia is a monarchy, and its government consists of executive, legislative and judicial branches (US Department of State, 2010). The executive branch is headed by the King and Prime Minister serving as the state chief and government head under the title of Custodian of the two Holy Mosques (CIA, 2011). The monarch usually appoints the executive cabinet for four-year terms (Council of Ministers and Members) most of whom are from the royal family (CIA, 2011). The Consultative Council or Majlis al-Shura is known as the legislative branch, which consists of a chairman and 150 members who are appointed. A particular committee is assigned to handle commercial disputes in business contracts. In March 2010, the Supreme Judicial Council opened commercial courts in the major cities in Saudi Arabia (CIA, 2011; Fakkar, 2010).

Saudi Arabian culture as well that of other countries in the Arab Peninsula have all been shaped by Islamic religion (Achoui, 2003). Long (2005) notes that almost everyone in Saudi Arabia is identified as a Muslim, and government legislation is based on Islamic religious law, namly the Shari'a. Undoubtedly, Saudi culture and law and Islamic religious teachings have an influence on quality of life, relationships and social phobia. Unfortunately, social anxiety in Saudi Arabia is still a common phenomenon, particularly among adolescents, in spite of the strictness of the Islamic law and culture.

3.7 National Culture

Hofstede (1990, 1991, 2001) defines national culture as a variety of collective mental programming presented by different nationalities with different attitudes, values, behaviours, competences and perceptions. This broad meaning is supported by Dedouss (2004), Shahin and Wright (2004) and Tayeb (1996). In contrast, Fukuyarna (1995) defined national culture as a set of inherited ethical habits with repeated ideas, values, images and social opinions, which vary from one culture to another.

3.8 Cultural Background

According to the Arabic collective culture system, both the extended and nuclear families are very well related to each other as groups more than as individuals (Dwairy & Dor, 2009). Many researchers, foreign or Arabic, value those who demonstrate and achieve group autonomy through their loyalty to their families (Peleg-Popko, Klingman & Nahhas, 2003; Peleg, 2010). In order to emphasise this, Lev-Wiesel and Alean (1999) indicated that both individual and family honours covered all aspects of social and economic life and are in constant symbiosis.

3.9 Social Values relating to Individualism and Collectivism

Markus and Kitayama (1991, 1994) hold that both individualism and collectivism emphasise different levels of interdependence among the individuals and interlocking responsibilities and the obligations of the family as a social unit. In the USA and UK, individualistic cultures predominate in that they place more emphasis on

autonomy, independence, individual privacy and the attainment of personal goals (Hofstede, 1980). In contrast, Arabic culture is argued to be more collectivistic, particularly Saudi Arabia (Barakat, 1993; Schart & Hertz-Lazarowitz, 2003; Dwairy, 2004). Saudi individual behaviour is mainly organised and influenced by other people, while children's relationships with their parents and relatives are directed and controlled strongly and governed with much respect for the whole family and the majority of society (Al-Garni, 2000; Anderson, 2001; Al-Sudairi, 2000). Another collectivistic society is Korea, which serves as a useful example for child–parent relationships. Korean mothers were found to talk less to their children during the daytime compared to their US counterparts, especially about past events, social discipline and morals. In addition, the conversations of American mothers were mainly focused on their children's personal characteristics, preferences and interests (Mullen & Yi, 1995).

In the early years, Baumrind (1971) argued that the collectivistic nature of Saudi culture was associated with authoritative and authoritarian parenting styles and has more impact on the children's social opportunities than individualistic cultures. Authoritative parenting is thought to be connected directly with the warmth of the parents and the positive and strong relationships which result in firmness and consistency. On the other hand, authoritarian parents are found to be governed by distant and critical attitudes towards their strict adherence to rules. Interestingly, US mothers presented nearly equal occurrences of both authoritative and authoritarian parenting according to self-reports of American mothers (Thomson, Raynor, Cornah, Stevenson & Sonuga-Barke, 2002).

Few studies have been conducted in Saudi Arabia about authoritative and authoritarian parenting. Al-Garni (2000) found that the Saudi parents intend to have asymmetrical parent–child relationships due to their authoritarian interactive style with their children, who frequently obey and follow orders and commands from their parents. As a result, it may be questioned how the socio-economic shifts in Saudi Arabia, as well as the spread of a formal Western-style of education, will affect parenting practices (Al-Banyan, 1980; Al-Sudairi, 2000; Al-Saif, 2003). It can be speculated that these changes will be affected by the collectivistic nature of Saudi society and can be expected to

make children more tightly tied into these changes along with adults. In this regard, children's behaviours are well-organised to develop their own strategies. Children also regulate their behaviours through limited strategies until they reach adolescence or adulthood.

3.10 Cross-national Differences in Educational Practices

The US and UK educational systems focus on learning through play, especially in the early years of primary school. Students in both countries are given opportunities to talk and communicate with peers (Deniz, 2004). In contrast, Al-Otaibi (1993) indicated that Saudi education focuses on lecturing from text books, memorisation, homework and tests. Al-Saif (2003) found that Saudi teachers focus on the traditional method rather than on practical methods. The traditional method has been found to be more formal leading to a discouraging atmosphere in the classroom. Saudi students in all three stages of education (primary, intermediate and high school) were given fewer chances for face-to-face dialogues with peers and teachers without constraints. It has been found that the method of education can affect the process of internalisation of social and private speech.

3.11 Social Standards

A social standard is considered to be an essential mediator of what a cultural group considers to cause anxiety. In other words, treatments of social anxiety are mainly supported by the cognitive model. This model is based on high standards of social performance which compel individuals to acquire and perceive situations as threatening and affecting people's anxiety and avoidance (Rapee & Heimbery, 1997). In addition, cognitive theories of social anxiety can be seen as evidence of cultural differences in relation to social standards of behaviours.

Heinrichs et al. (2006) found that students from collectivistic countries tend to accept socially reticent behaviour as well as the personal and cultural attention-avoiding behaviour in relation to anxiety and the fear of blushing. In East Asian cultures, there is

a lower acceptance of attention-seeking behaviours in relation to cultural and social anxiety.

Social anxiety among Asians residing in Western countries is often attributed to a cultural tendency (Hsu & Alden, 2007). Both inter-dependent orientations and social anxiety were found to be suitable for foreign-born Asian Americans. Abe and Zane (1990) indicated that Asian Americans had higher rates of social anxiety when compared to European Americans. On the other hand, self-reported social anxiety was also found to be associated with culturally specific self-views when measured by independent and interdependent self-construal.

Nurasakkunkit and Kalick (2002) and Hong and Woody (2007) showed that individualistic societies which value individual autonomy promote an independent self-construal. In contrast, the collectivistic societies in East Asia have promoted an interdependent self-construal which focuses mainly on one's self-adaptation in various social contexts.

3.12 Summary

In summary, in this chapter, sociological research conducted on societal attitudes in Saudi Arabia has been discussed. In Saudi Arabia, men usually are considered to hold the tribal and patriarchal powers of decision-making. On the other hand, women are now taking part in decision-making processes which were exclusively limited to men in the past. Individualistic societies are characterised by three dimensions: individuality, expression and assertion. In contrast, collectivistic societies are characterised by interpersonal accommodation, deference and cautiousness. Hsu and Alden (2007) investigated ethnic differences in social anxiety and social impairment. They found more social anxiety and impairment in the Chinese Canadian college students than in their Canadian counterparts. The results therefore rejected the hypothesis that social anxiety symptoms resulted in little impairment among Asians. On the other hand, it was found that social anxiety in Saudi groups compared to British ones related to some extent to the lack of assertion as well as to the suppression of emotions. It can be concluded that Saudi culture and law and Islamic religious teachings

have an influence on quality of life, relationships and social phobia. Unfortunately, social anxiety in Saudi Arabia is still a common phenomenon, particularly among adolescents, in spite of the strictness of the Islamic law and culture.

CHAPTER FOUR

4 THEORETICAL FRAMEWORK

4.1 Overview

Numerous psychological models have attempted to explain the process of social anxiety. They can be divided into Cognitive Behavioural Models and Interpersonal theories. Theoretical models presented for several childhood disorders appear to be extensions of models for adult psychopathology. The existing models are seen to be exploratory in their description of pathways or links, including aspects such as mutual interaction. Contrary to the established models of SAD in adulthood, more positive aspects are recommended for inclusion in child and adolescent models, such as mutual interaction of temperament, heredity, parenting, and managing peer relationships.

First, Cognitive Behavioural Therapy (CBT) and the relevant underpinning theoretical assumptions along with four cognitive behavioural models are reviwed and compared. Next, a fifth model is then discussed, concerning social anxiety in individuals with psychosis. Finally, an alternative theory of social anxiety is addressed; namely interpersonal theories related to social anxiety.

4.2 Cognitive Behavioural Models

Cognitive Behavioural Therapy is based on the theory that SAD develops due to a combination of determinants, including biological factors and learning experiences (Beidel, Ferrell, Alfano & Yeganeh, 2001; Spence, Donovan & Brechman-Toussaint, 2000). The theory specifies that one of the biological factors is the existence of a number of compromised cells which causes the person to develop maladaptive beliefs and create assumptions about events that are not true in most cases. When individuals continue to dwell on these beliefs, it is likely that selective attention and the biased interpretation of events will perpetuate the social anxiety (Rapee & Heimberg, 1997).

Research on cognitive processes in children and adolescents with anxiety disorders is emerging, however Hadwin et al. (2006) found evidence to support

attention bias and interpretation bias. Therefore, studies on cognitive processes which have focused on SAD maintenance rather than its onset are discussed below.

In a study of non-referred children, aged 8 to 13 years, it was found that such children perceive ambiguous social situations as threatening, and this was seen more frequently in the control group (Muris et al., 2000). In a non-referred group of adolescents, non-socially anxious adolescents were not as biased in their interpretations (Miers et al., 2008). From these studies it can be seen that children tend to overestimate the danger to a higher degree than the clinical control group (Bögels and Zigterman, 2000). These studies also clarified aspects of information processing in relation to SAD, although this is still a growing area of research.

Classical conditioning theories are considered to underpin behavioural models of social anxiety, and are clearly mentioned in the aetiology of SAD (Rapee & Spence, 2004). According to the classic conditioning model, SAD may result from the experience of humiliating interpersonal interactions (Rapee & Spence, 2004). These experiences could include pronouncing a word in the wrong way (conditioned stimuli) then having someone criticising you, which may bring about the feeling of anxiety (unconditioned stimuli). Having experienced this may generate anxiety about humiliating onself in the future. Apart from conditioning, another way of learning is modelling in which children learn through observing their parents' behaviour.

4.3 Clark and Wells's (1995) Cognitive Model of Social Phobia

This model might be considered the most useful for underpinning cognitive-behavioural therapy (Wells, 2001; Wells & McMillan, 2004). According to Clark and Wells (1995), there is a link between social phobia and feeling under pressure to portray a favourable image of oneself, as well as a noticeable lack of confidence in attempting to cope with these demands. Clark and Wells (1995) suggest that when people with social anxiety assume that they are being watched, or that they have failed to present themselves in a fashionable way, there is a greater risk that their anxiety may arise. This anxiety then leads to detailed personal observation and self-monitoring, with most of this information being negatively processed in order to create a negative impression.

Individuals may also imagine themselves to be scrutinised by others who may in the end judge and devalue them. It has been observed that because people with social anxiety have little understanding of the behaviours being enacted towards them, they remain fearful since they remain uninformed about others' thoughts towards them (Clark & Wells, 1995). Such methods of processing evidence are clearly biased, and lead to a perpetuation of the perceived danger. Rapee and Heimberg (1997) and Hoffman (2007) have both devised a model of the in-vivo process of social anxiety.

4.4 Rapee and Heimberg's (1997) Cognitive-behavioural Model of Social Phobia

Similar to the Clark and Wells (1995) model, Rapee and Heimberg's (1997) Model of Cognitive Behavioural Therapy also posits that social phobia develops through individuals' developing an image of themselves as being observed by others, which reduces the amount of attention available for focusing on receiving accurate feedback. They hold that people who are socially anxious believe that being judged positively by others is important, and they live with the constant fear that people are watching them. Individuals tend to develop methods to predict what their observers would expect from them. Using this information, the individual compares it with their mental self-image which is based on external and internal reminders. The inconsistency between the professed expectation and expectations of the audience determines the likelihood of negative evaluation of themselves, and they tend to think that they fall short of the expected norm. Presented with this situation, the individual is likely to remain stressed, thereby resulting in the maintance of the vicious cycle.

4.5 Hoffman's (2007) Comprehensive and Disorder-specific Cognitive Behaviour Therapy (CBT) Model of Social Anxiety Disorder

According to Hoffman (2007), people with social anxiety perceive social standards as unattainable. The goals then become unobtainable because they are unclear, and doubt that they will meet these demands prevents any progress which is then linked

to self-monitoring and social anxiety (Clark & McManus, 2002; Heinrichs & Hoffmann, 2004). This further intensifies the negative cognitive processes linked to any social encounters they could face. Such individuals could also overestimate the potential for social costs (Hofmann, 2004). In addition, they tend to believe that they have lost control over their anxiety and resulting behaviours (Hoffman & Barlow, 2002). Instead of viewing themselves positively, they end up perceiving themselves as social objects that will never be regarded as dignified persons, as they are likely to perform in a way that fails to meet the standards. Wells et al. (1995) supports this conception by stating that, in the end, individuals start to act in a safe way and ruminate deeply about the event (Mellings & Alden, 2000) which then simply exacerbates the scenario presented.

These two models (Rapee & Heimberg, 1997; Hoffman, 2007) appear very similar in nature, in that they both emphasise interpersonal processes, although a marked difference seems to exist. From this it can be seen that audience responses remain in the minds of the socially anxious individuals. According to Hoffmann (2007), it can be concluded that such individuals continuously look at themselves from a negative point of view. This disposes those with social stigma to maintain a negative view of themselves. The self-focused attention and inability to look for evidence are common aspects found in people with social anxiety. By focusing on these aspects, a therapeutic model could be designed to help people to ward off issues related to social anxiety.

4.6 Moscovitch's (2009) Proposed Model of the Feared Stimulus and Functionally related Clinical Sequelae in Social Anxiety

Moscovtich (2009) argues that, for a person-centred approach, it is important to ensure that no assumptions are made about the fears that are commonly found in patients with social anxiety; it is crucial to maintain an explorative approach. The Moscovtich (2009) model proposes that, when providing therapy, it is crucial to focus on the fear stimulus rather than placing emphasis on increasing exposure to social situations; focusing on the fear stimulus forms an important aspect in Cognitive Behaviour Therapy. Moscovitch (2009) argues that it is important to ensure that the fear

stimulus is not generalised to all people who are socially anxious, but rather emphasis should be placed on the individual's own insights and detailed attributes which they believe do not meet their social expectations. In contrast to the Cognitive Behavioural Model, interpersonal theories of social anxiety could also offer alternative explanations for the aetiology of SAD. These are discussed next.

4.7 Interpersonal Theories

From much of the evidence analysed above, it can be concluded that SAD involves disruptions in interpersonal functioning. This assumption is expected to help explain how social processes form interpersonal behaviour patterns potentially giving rise to developments and perpetuation of SAD. Interpersonal theories have been not widely used in field research of SAD in children and adolescents. Models built on the theory hypothesise that social behaviour is formed through interaction, for example, a certain behaviour may evoke a particular reaction from others which in turn may reinforce and maintain the individuals' underlying beliefs, resulting in self-perpetuating cycles of social anxiety (Alden, Taylor, Laposa & Mellings, 2006). Temperament is also considered an important factor in developing and maintaining social anxiety, but the question is on how these patterns continue to exist. The relationships formed in the early years are seen to shape our personal characters with respect to what we should expect from other people. This could also explain the idea of homophility, the idea that humans are attracted to people who are similar to themselves, and in the case of children it could explain shyness or social phobia (Rubin et al., 2006). Homophility could also constitute a risk and a protective factor for peer victimisation and social anxiety, if evidence from co-rumination is taken into consideration; co-rumination refers to an extensive discussion and revisiting of problems, as well as speculation about problems, and focusing on negative feelings with peers.

The interpersonal theory consists of a self-representational model which explains how an individual would want to be and how they perceive themselves. Schlenker and Leary (1982) state that social anxiety is triggered mainly by a perception that one has failed to meet the standards or present themselves in a desirable way, which

may lead to the development of SAD. Disapproval from parents and colleagues could be seen as major factor in causing anxiety. For example, a tendency in girls is that of wanting to impress others. These findings may be related to the self-representational model, as well as the higher prevalence rate of SAD in girls. Alden et al. (2006) argues that individuals who had been abused were rated by their partners as cold and unfriendly. This evaluation has implications for the ability to form a therapeutic relationship, as well as for treatment results (Alden & Taylor, 2004). Evidence from studies concerning this issue has revealed that the experience of victimisation may shape interpersonal patterns and may contribute to the development of social anxiety.

4.8 Overview: Comparison and Critique

The four models presented above appear to be similar in terms of how they conceptualise social anxiety. The theories hold that people with social anxiety believe that their competence is inferior to that of others. Accordingly, they worry about failing to meet the expectations of others. Of particular importance to these models is the belief that the person with social anxiety remains with those harshly judging individuals who consider them to be inferior. All the models hold the assumption that these beliefs are inaccurate and due to cognitive biases and interpretations. In addition, they are based on CBT assumptions that can only be tested using behavioural experiments. Clark and Wells's (1995) and Rapee and Heimberg's (1997) models clearly state that the problem with many individuals is that they create a mental image of themselves which is based on facts about how other see them that are unfounded. By comparing this image to others, individuals are at risk of building a negative image of themselves which then leads to feelings of inferiority. Negative comparison is included but Moscovitch (2009) and Hoffmann (2007) also maintain that individuals tend to dwell on thoughts that are unambiguous. They also state that negative self-perception is enduring, and its associations are activated when faced with a social situation that is considered by the individual as threatening.

A number of critics have suggested that Clark and Watson's tripartite model does not account for substantially dissimilar occurrences (Brown, Chorpita & Barlwo,

1998; Chorpita et al., 2005). However, research by Watson et al. (2005) supports this tripartite model, although the evidence mainly supports social phobia. Research with adults and young people (Chorpita, Plummer & Moffit, 2000) has revealed that negative affect (NA) is not high in individuals with social phobia which contravenes the original model. Another finding is that positive affect (PA) is unconstructively linked to the frequency of contact with friends, the ability to make new friends, or spending time with other people. Studies also show that PA has a unique relationship with social phobia and that it can also be related to personal character including low levels of confidence and unassertiveness, which may explain why it fails to relate anxiety disorders (Brown et al., 1998).

Other studies have suggested that physiological hyperarousal (PH) is significantly linked with panic disorder and it is less linked to social phobia in adults (Brown et al., 1998) and children aged 6 to 12 (Chorpita et al., 1998). Self-report has been used to measure the PH construct which was theorised by Clark and Watson, and low to moderate correlations have been found between subjective and objective provocation (Mauss, Wilhelm & Gross, 2004). This research has however not been conducted on a sample of young people. These studies suggest that the nature of social phobia differs in its relation to the tripartite constructs. Interestingly, the tripartite constructs are seen to differ in social phobia more than in the proposed model. However, little research has examined the tripartite constructs in children and adolescents with social phobia; therefore more evidence is needed to reach a reliable conclusion (Anderson & Hope, 2008).

According to Anderson and Hope (2008), in order to come up with substantial information on tripartite constructs in relation to social phobia, adolescent samples could aid with information needed to help gather more information about social anxiety; since the onset of social phobia usually take place in adolescence. Mountier and Stein (1999) maintain that adults with social phobia are more likely to develop social phobia compared to adults without social phobia. Given this evidence, it is possible that that there is a developmental progression from social phobia to depression. With regards to treatment, earlier identification and treatment could prevent morbidity in later stages

and also associated impairment. As noted by Weems and Stickle (2005), tripartite constructs need to be included in the process of defining anxiety-depressive disorders, in order to help with diagnosis, in terms of discriminant validity. So far the issue of the more severe forms of psychiatric disorder such as individuals' losing contact with reality has not been discussed.

4.9 Summary

The models discussed above and the risk factors associated with SAD form the basis for understanding SAD. However, supplementary research from various perspectives on environmental factors in relation to developmental specifics should be carried out in order to gain a better understanding of how normal development can be promoted and to reduce prevalence figures for social anxiety. The study of the contribution of victimisation of the development of SAD also needs particular attention in order to have a clearer understanding of the clinical outcomes of SAD. The following chapter covers the measurement model analysis.

CHAPTER FIVE

5 RESEARCH FRAMEWORK

5.1 Introduction

The aim of this chapter is to create a measurement model in order to evaluate the link between social anxiety in adolescents and quality of life. Cognitive and social correlates of social anxiety are taken into consideration when analysing the data to draw a full picture of this measurement model.

Moscovitch et al. (2005, p. 669) highlight, "the importance for future research to examine the component proximal and context-bound psychological mechanisms that mediate the distal influences of culture and gender enculturation on social anxiety and actual performance decrements or functional impairments."

They add that this might need controlled laboratory investigation of self and social information-processing under the conditions given of real-life social requirements. Thus, this chapter investigates the relationships between social interaction, cognitive aspect, culture, anxiety, social anxiety and quality of life.

Ollendick and March (2004, p. 207) state that:

> *social anxiety must be approached with a multifactorial and transactional model, whereby biological vulnerability interacts with and is shaped by contexts such as parenting style, peer relations, school settings, and culture. To fully understand and effectively treat youth with social anxiety disorder the fluidity of person-environment interactions must be uncovered through appropriate assessment and intervention strategies*.

Thus, this study assumes that specific developmental path analysis to adolescents' social anxiety would involve variation of these risk factors. Moreover, some current studies investigated the estimated direct and indirect paths for social anxiety with other factors such as culture, quality of life, anxiety, social interaction,

emotion and negative evaluation. Models of those studies are highlighted in the next section.

5.2 Models of Social Anxiety

5.2.1 Estimated direct and indirect paths for social anxiety

The result of estimated paths for social anxiety as shown in figure 5.1, examined by Hsu et al. (2012), indicate that initiation social self-efficacy, social comparison and submissive behaviour mediate in part the social anxiety scores of a bicultural group. Moreover, a unicutural group in line with the cultural group reported significantly less social anxiety than the bicultural group; also, in terms of cultural acceptance of attention-seeking behaviour and other variables mentioned above, the unicutural group reported a higher score than the bicultural one. It has been found that social norms were oppositely associated with social anxiety.

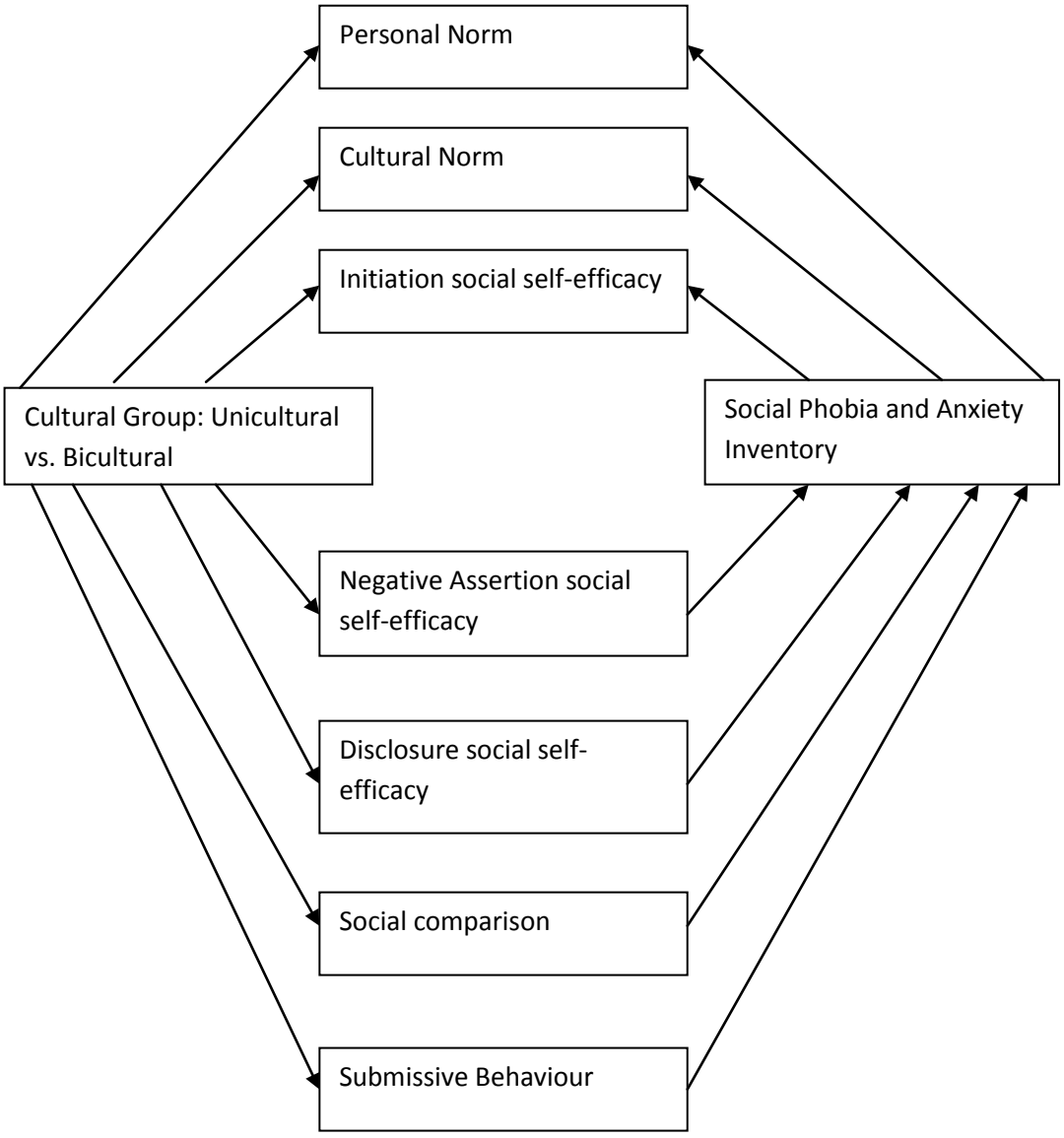


Figure 5.1: Estimated direct and indirect paths for social anxiety.
Source: Hsu et al. (2012, p. 187).

5.2.2 Models of relations between social anxiety, beliefs about the expression of emotions, suppression of emotions, experiencing positive and negative emotions and life satisfaction

Based on the model of social phobia that was developed by Clark and Wells (1995), which emphasises the acting of cognition as well as the model of emotion by Gross (2001), Juretić and Živčić-Bećirevic (2013) examined a model which included

the relationships between social anxiety, beliefs about emotional expression, emotion suppression, positive and negative emotions and life satisfaction. As shown in figure 5.2, they hypothesised that relationship between social anxiety and emotions, and quality of life (life satisfaction) will be mediated by beliefs that are related to emotions expression and emotion suppression. They found that only social anxiety that stands for the fear that a person could have during meeting with other people was found to be significant.

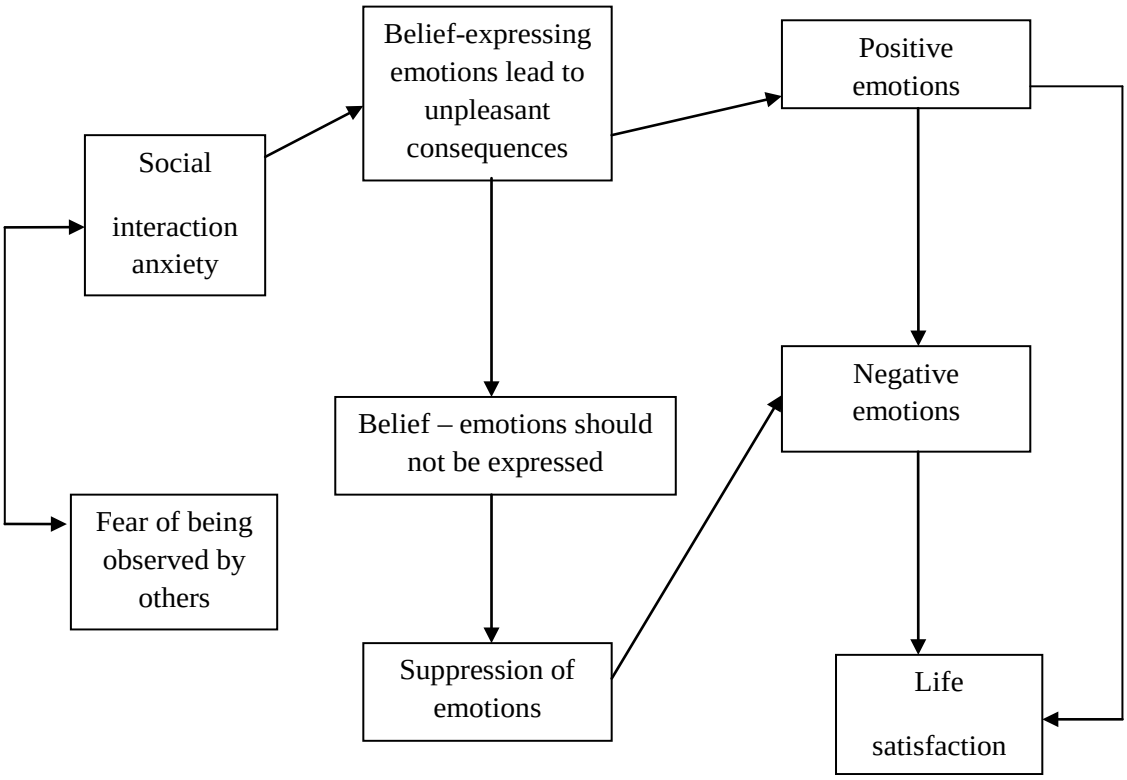


Figure 5.2: Model of relations between social anxiety, beliefs about the expression of emotions, suppression of emotions, experiencing positive and negative emotions and life satisfaction.

Source: Juretić and Živčić-Bećirevic (2013, p. 199)

5.2.3 Standardized estimates of the path model with the associations between cultural background (Swiss/Indonesian), self-construal, social anxiety, and taijin kyofusho

Vriends et al.'s (2013) model describes a non-significant association with cultural background and an independent self-construal with the value of a zero which could be anticipated grounded on the equivalent "independent self-construal" study

group's scores. So, without that association, they reran the model and an excellent fit was shown with their model. In this model, as shown in figure 5.3, all associations were significant. The TKS and Social Anxiety are shown as strongly correlated. In social anxiety and for TKS, a prediction was made about higher scores for individuals with Indonesian background. An interdependent self-construal has mediated partially the cultural background effect on TKS and social anxiety. Indirect effects were indicated for cultural background on social anxiety and on TKS. An independent self-construal projected lower scores for social anxiety and TKS while an interdependent self-construal projected higher scores on social anxiety and TKS.

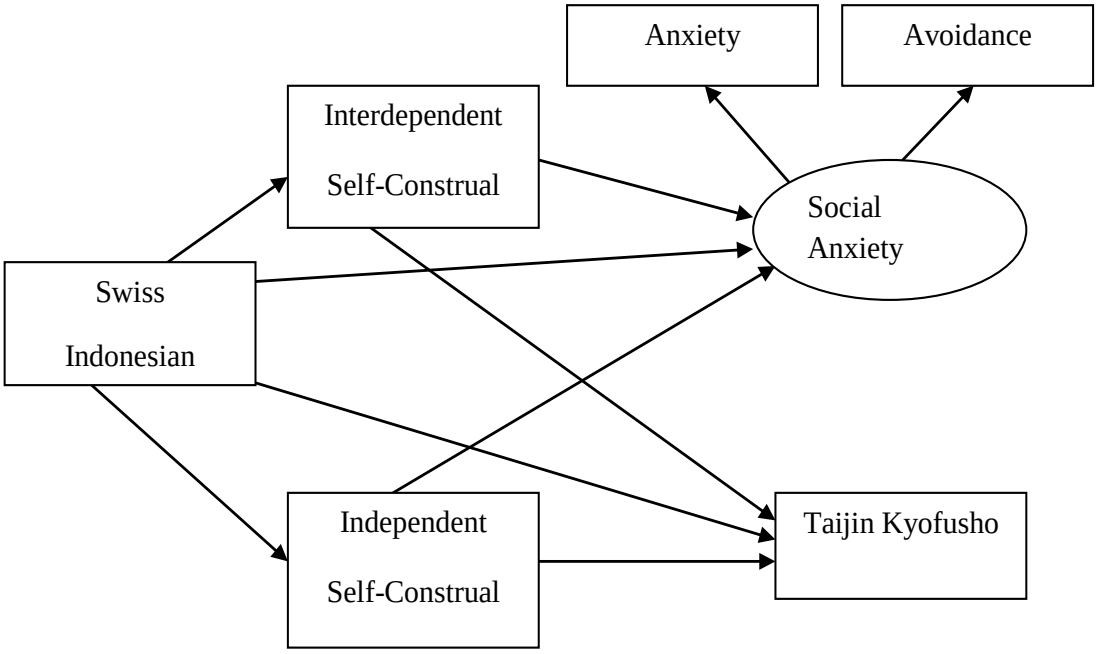


Figure 5.3: Standardized estimates of the path model with the associations between cultural background (Swiss/Indonesian), self-construal, social anxiety, and *taijin kyofusho.*

Source: Vriends et al. (2013, p. 3)

5.3 Measurement Model

Statistical procedures included descriptive statistics and correlational analysis is reported. The data analyses were conducted using Analysis of Moment Structures (AMOS 20) software. Structural Equation Modelling (SEM) was used to test hypotheses about the links between social anxiety measured by the Social Anxiety Scale

for Adolescents (SAS-A) and Social Phobia Inventory (SPIN**)**, and social interaction measured by the Social Interaction Anxiety Scale (SIAS), cognitive aspect measured by the Brief version of the Fear of Negative Evaluation Scale (BFNE), cultural tendency measured by the Self-Referent Adjective Questionnaire (SRAQ), anxiety measured by the Beck Anxiety Inventory (BAI), and quality of life (QoL) measured by the World Health Organization's Quality of Life Questionnaire (WHOQOL-BREF). The measurement model is first assessed for construct reliability and validity with Confirmatory Factor Analysis (CFA). Then the hypothesised relationships are tested with a Path Analysis; CFA involved unidimensionality analysis, reliability analysis and validity analysis. The following model (figure 5.4) is proposed.

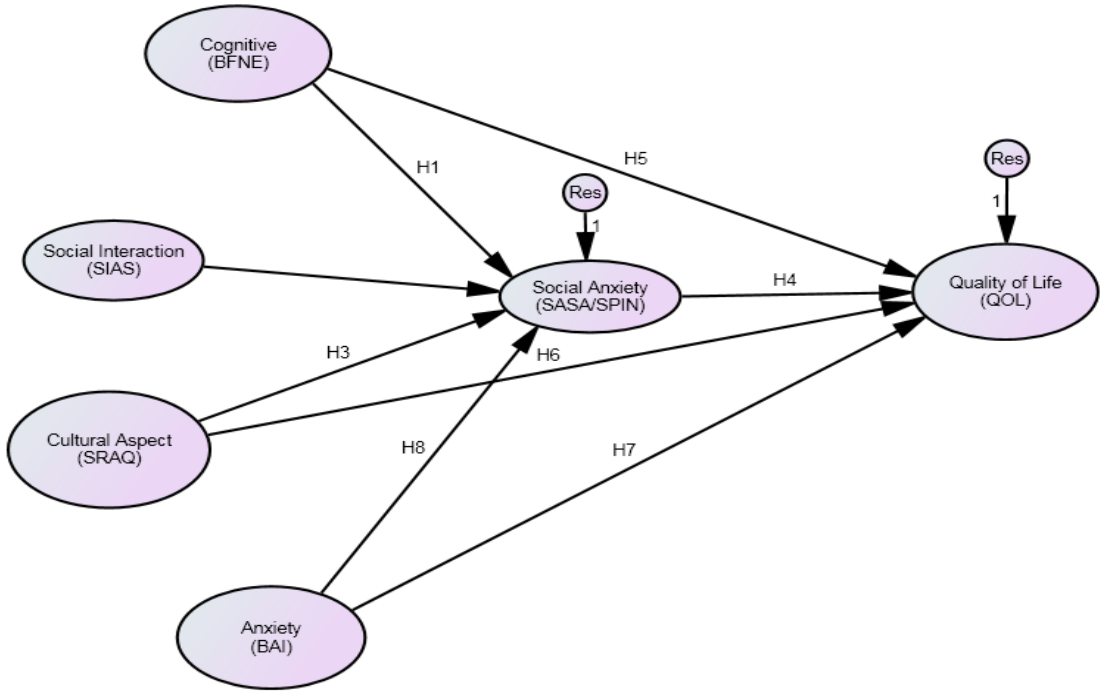


Figure 5.4: Measurement Model

5.3.1 Structural Equation Modeling hypothesis to be tested

To achieve the objectives of the study, a number of hypotheses were put forward to explain the relationships between Social interaction (SIAS), Cognitive factors (BFNE), Cultural tendency (SRAQ), Anxiety (BAI), Social anxiety (SAS-A and SPIN), and Quality of life (WHOQOL-BREF):

H1) There is a relationship between Cognitive factors (BFNE) and Social anxiety (SAS-A and SPIN).

There is a relationship between Cognitive factors (BFNE) and Social anxiety (SAS-A).

There is a relationship between Cognitive factors (BFNE) and Social anxiety (SPIN).

H2) There is a relationship between Social interaction (SIAS) and Social anxiety (SAS-A and SPIN).

There is a relationship between Social interaction (SIAS) and Social anxiety (SAS-A).

There is a relationship between Social interaction (SIAS) and Social anxiety (SPIN).

H3) There is a relationship between Cultural tendency (SRAQ) and Social anxiety (SAS-A and SPIN).

There is a relationship between Cultural tendency (SRAQ) and Social anxiety (SAS-A).

There is a relationship between Cultural tendency (SRAQ) and Social anxiety (SPIN).

H4) There is a relationship between Anxiety (BAI) and Social anxiety (SAS-A and SPIN).

There is a relationship between Anxiety (BAI) and Social anxiety (SAS-A).

There is a relationship between Anxiety (BAI) and Social anxiety (SPIN).

H5) There is a relationship between Cognitive factors (BFNE) and Quality of life (WHOQOL-BREF).

H6) There is a relationship between Cultural tendency (SRAQ) and Quality of life (WHOQOL-BREF).

H7) There is a relationship between Anxiety (BAI) and Quality of life (WHOQOL-BREF).

H8) There is a relationship between Social interaction (SIAS) and Quality of life (WHOQOL-BREF).

H9) There is a relationship between Social anxiety (SA) and Quality of life (WHOQOL-BREF).

a) There is a relationship between Social anxiety (SAS-A) and Quality of life (WHOQOL-BREF).

b) There is a relationship between Social anxiety (SPIN) and Quality of life (WHOQOL-BREF).

H10) Social anxiety (SAS-A and SPIN) mediates the effect of Social interaction (SIAS), Cognitive factors (BFNE), Cultural tendency (SRAQ), and Anxiety (BAI) on Quality of life (WHOQOL-BREF).

a) Social anxiety (SAS-A) mediates the relationships between Quality of life (WHOQOL-BREF) and Social interaction (SIAS), Cognitive factors (BFNE), Cultural tendency (SRAQ), and Anxiety (BAI).

b) Social anxiety (SPIN) mediates the relationships between Quality of life (WHOQOL-BREF) and Social interaction (SIAS), Cognitive factors (BFNE), Cultural tendency (SRAQ), and Anxiety (BAI).

H11) Group (normal and clinical samples) moderates the relationships between Quality of life (WHOQOL-BREF) and Social interaction (SIAS), Cognitive factors (BFNE), Cultural tendency (SRAQ), Anxiety (BAI), Social anxiety (SA).

H12) Sex moderates the relationships between Quality of life (WHOQOL-BREF) and Social interaction (SIAS), Cognitive factors (BFNE), Cultural tendency (SRAQ), Anxiety (BAI), Social anxiety (SAS-A and SPIN).

5.4 Summary

This chapter extends the work in chapter four, which discussed the theoretical framework. Drawing upon social anxiety models and theories discussed in the previous and current chapters, this study investigates social anxiety and cognative aspect as well as cultural tendency variables affecting quality of life. This chapter has built a measurement framework and developed hypotheses based on previous literature. The underlying principles for constructing the measurement framework are mainly based on the preceding theoretical justification, previous literature and empirical research. The models of social anxiety were discussed. Finally, the researcher specified the structural models used to test the hypotheses. The next chapter introduces the research methodology.

CHAPTER SIX

6 RESEARCH METHODOLOGY

6.1 Overview

Looking towards the research objectives, this chapter opens with a discussion of the research approach underpinning this study. Research methodology may be defined as "the overall approach to the research process, from the theoretical underpinning to the collection and analysis of the data" (Collis & Hussey, 2003, p. 55). This chapter contains the research design, research strategy, data collection methods, and issues of reliability and validity. The sampling frame, questionnaire design and administration of the survey questionnaire to three different groups of adolescents are then addressed. The final section of this chapter discusses the diagnosis, inclusion and exclusion criteria for social anxiety disorder.

6.2 Research Objectives

Researchers, psychologists, socialogists and educators have recently stressed the need for and importance of studying teenagers' social anxiety via self-report instruments to reflect their disorders. The objective of the present study is to discover whether early intervention could help to prevent the late, risky phases and symptoms of social phobia. Specifically, the aim is to investigate the link between social anxiety and the quality of life in Saudi adolescents, aged 12 to 19 years, and related cognitive, social interaction and cultural aspects.

6.3 Research Approach

Two broad methods of reasoning in research are the deductive and inductive approaches. The deductive approach is used when testing theory while the inductive approach is used when building theory.

6.3.1 Deductive approach

In the deductive approach, “the conclusion must follow from the premises” (Williams & May, 1996, p. 25). The process of deductive research begins with the development of hypotheses from theory. This is followed by data collection, hypothesis testing and any modification or confirmation of the theory (Creswell, 2003). Accordingly, testing of the theory moves from the general to the particular (de Vaus, 2001). The significant features of the deductive approach are the exploration of causal relationships between variables, quantitative and suitable qualitative data collection, testing hypotheses with controls, and a highly structured methodology for replication, operationalisation, reductionism and generalisation (Saunders et al., 2003).

6.3.2 Inductive approach

Induction is defined as “the derivation of a general principle or possibly a law in science, which is inferred from specific observations” (Williams & May, 1996, p. 22). The inductive research processes include data collection, data analysis, and theory-forming. Under this approach, theory building moves from the individual observation to general pattern or laws (Collis and Hussey, 2003). The main focus of the inductive approach is gaining insight into an event’s meaning, quantitative data collection, a pragmatic structure in order to research emphasis changes, and minimisation of generalisation (Saunders et al., 2003). The present study is grounded mainly in the deductive approach as this is necessary in the formation of hypotheses from the relevant theory, and in the testing of the hypotheses using quantitative (statistical) methods.

6.4 Research Design

For observational or descriptive studies, a cross-sectional design is generally used. This design is useful for analysing the relationships between the different variables of interest, based on a representative sample. A cross-sectional design is relatively time- and cost-effective. Since data need be collected at only one point in time, from a single group, in order to study multiple outcomes or collect service-planning information along with other data (Susser, 2001). To investigate the relationship

between and social phobia and quality of life in Saudi adolescents, aged 12 to 19 years, a cross-sectional design has been used. A two-stage model was adopted. The first stage was to determine which *DSM-IV* diagnostic criteria for social phobia would be met by adolescents in Saudi Arabia. The second stage explored the behaviour of adolescents who met the diagnostic criteria for social anxiety disorder.

6.4.1 Research strategy

A research strategy that is aligned with the deductive approach is the survey (Ryan et al., 2002). As the literature review indicated, the majority of mental health research has been conducted using survey research. Strengths of surveys are that they can include a large number of respondents; they are cost-effective; and the results can be compared with other studies. However, the appropriate number of respondents needs to be targeted and the questions may lack validity, with respondents responding based on their own interpretation of the question (Collis & Hussey, 2003; Saunders et al., 2003). As long as these limitations are borne in mind, surveys can nevertheless provide useful information about the phenomenon under study.

6.4.2 Data collection methods for survey research

A number of strategies related to survey research exist. These include the questionnaire, structured observation, and the structured interview, with the survey questionnaire now one of the most widely used methods of data collection (Saunders et al., 2003). Survey questionnaires can be either self-administered or interviewer-administered, with self-administered questionnaires usually used in the initial stages of the research process. This method enables large amounts of information to be collected from a large number of people in a short period of time and in a relatively cost-effective way. In addition, the questions will not be affected by the interviewer. In comparison with other response types, this method may suffer from a lower response rate. Initiatives such as a good cover letter, follow-up letter, stamped return envelopes and suitable questionnaire length are some of the measures that can be taken to maximise the response rate (Sekaran, 2000). Based on previous research, a survey questionnaire about

social interaction has been developed for the present study, and it was distributed along with the rest of the current study scales.

6.4.3 Time horizon

The forecasted time horizon for research has some influence on the nature of the study. The horizon is either longitudinal or cross-sectional. A longitudinal study may be defined as "a study that extends over a substantial period of time and involves studying changes over time" (Remenyi et al., 1998, p. 47). This entails a dynamic investigation of the same situation or individuals repeatedly over an extended period of time, focusing on the same research problem. Longitudinal studies can be either quantitative or qualitative, or both, in their data collection methods (Collis & Hussey, 2003). Their strength is that they can capture the dynamic changes of a certain situation, however, it is time-consuming and expensive (de Vaus, 2001).

In contrast, a cross-sectional study has been defined as "a study in which data are gathered just once, perhaps over a period of days or weeks or months, in order to answer a research question" (Sekaran, 2000, p. 138). The cross-sectional study takes a snap-shot of the present situation of a large number of subjects (Collis & Hussey, 2003) and is therefore relatively cost-effective. Because the questionnaire-based method is usually conducted in cross-sectional design (Walliman, 2006), and is the most widely adopted method in social science research (de Vaus, 2001), the present study took a cross-sectional design, with further data analysis and the final report is based on this method of data collection. In addition, the existing literatures related to mental health indicate that the cross-sectional study is used more widely than longitudinal studies. As data will be collected within a single period of time, this study can be considered as mainstream research.

6.5 Credibility of the Research

Research credibility refers to the extent to which the risk of obtaining inaccurate or incorrect responses to the research questions is minimised. Reliability and validity

are two key aspects associated with the credibility of the research (Saunders et al., 2003).

6.5.1 Reliability

Also termed ‘replicability’, reliability refers to the extent to which the same or different researchers obtain the same findings based on the same types of data (Bryman & Bell, 2007; Collis & Hussey, 2003). Reliability is said to exist when measurement and research findings are stable (Easterby-Smith et al., 2004; Ghauri & Gronhaug, 2005). As research surveys typically have high levels of reliability, and are often analysed using quantitative methods, they are aligned with the positivistic research paradigm (Collis & Hussey, 2003). To ensure consistency and comparability with previous research findings, the questionnaire questions for the present study were based on the measures of previous studies. The research instruments were tested in a pilot study to ensure that measurement and the research findings would be reliable. To ensure reliable and valid constructs, Cronbach’s alpha and factor analysis have been used.

6.5.2 Validity

Validity refers to the degree of accuracy of the research findings and how representative the findings are of the real or underlying situation (Collis & Hussey, 2003). ‘Internal validity’ and ‘external validity’ are two key aspects of validity. Internal validity is the degree of control that is achieved over irrelevant influences on the research findings; the greater the control, the higher the rate of internal validity (Ryan et al., 2002). Internal validity may also be viewed in terms of the causal relationship between the dependent and independent variables. A study has high internal validity when the variation in dependent variables comes from the internal variables rather than from extraneous variables (Modell, 2005). Inferences are said to possess internal validity if a causal relation between two variables is properly demonstrated.

External validity is related to the generalisability of the research findings. It is the ability to draw valid conclusions from the sample (one setting) to the population (another setting) (Ryan et al., 2002). Generalisations may be either theoretical or statistical. Theoretical generalisation pertains to interpretive case studies, while

statistical generalisation pertains to a positivistic survey (Yin, 1994). Through triangulation, both internal and external validity can be strengthened. If the results of the survey follow previous hypotheses and case-study-related quantitative findings, then internal validity can be demonstrated. Qualitative data might enrich and substantiate the casual explanations derived from statistical methods, which will lead to enhanced internal validity. External validity, on the other hand, might be strengthened by efforts taken to improve internal validity. In other words, both survey-related generalisation and case-study-related theoretical generalisation can improve the generalisability (Modell, 2009).

Other forms of validity include 'face validity' and 'construct validity'. As the most widely used way to assess the validity, face validity involves "ensuring that the tests or measures used by the researcher do actually measure or represent what they are supposed to measure or represent" (Collis & Hussey, 2009, p. 65). In contrast, construct validity may be defined as "the extent to which an operationalisation measures the concept which it purports to measure" (Ghauri & Gronhaug, 2005, p. 83). This is connected to hypothetical constructs, that is, phenomena that are not directly observable. The purpose of hypothetical constructs is to clarify observable phenomena. The construct can be used to explain the research findings and the observations must be demonstrated by the researcher (Collis & Hussey, 2003).

Survey research is said to be highly reliable if it supports replication, while it is considered to have low validity if it does not reflect the real phenomena intended by the researcher (Collis & Hussey, 2003). Thus, the greater is its capability to deliver findings that are accurate reflections of reality, the higher is its validity. The aim of positivist research designs is to maximise validity (Easterby-Smith et al., 2008). To gain a more holistic understanding of the relationships between social anxiety and quality of life in Saudi adolescents, the present study used a survey questionnaire. Apart from enriching insights into social phobia in this population, the case study can assist in interpreting any unexpected and unusual findings from the questionnaire-based or survey study (Modell, 2005).

Apart from the above, other procedures may help to strengthen the measurement validity of the study. Face validity can be strengthened by using qualitative methods in the questionnaire. On a measure of social anxiety, for example, the test would be said to have face validity if it appeared to actually measure levels of social anxiety. Study, multiple indicators and factor analysis have been used to ensure construct validity. Moreover, a series of correlation coefficients between previously validated scales and new scales has been used to detect convergent/divergent validity. Measurement is thought to be more rigorous, with reduced rates of error, when multiple indicators and factor analysis are used. A coefficient of internal consistency, Cronbach's alpha is commonly used as an estimate of the reliability of a psychometric test, that is, how closely related a set of items are as a group. For example, in a study about people's strategic priorities, several variables pertaining to strategic priorities need to be measured in order to capture a specific construct. In other words, so as not to rely on a sole question, respondents should be asked numerous questionnaire items to assess their strategic priorities.

6.6 Questionnaire Administration and Sampling Frame

The questionnaires (See Appendix 1 for the English version and Appendix 3 for the Arabic version) were administered to community, clinical and British samples. The participants took an average of 25 to 30 minutes to complete the questionnaire.

The researcher delivered the questionnaires package to 30 schools in July 2012, following the list of the Department of Education in Dammam, Saudi Arabia. Twenty-two schools responded and returned questionnaires which were pre-numbered for identification purposes in the follow-up processes. In total, 580 questionnaires were returned. However, some information was missing or unclear. Due to the illegibility of some of the answers, two questionnaires were returned to the participants to clarify. Responses that were unreadable and non-responses were discarded (Saunders et al., 2003).

6.6.1 (1) Community sample: n = 564, age range 12-19, from elementary and high schools

Using the schools listed by the Department of Education in Dammam 2012, 22 schools were randomly selected. Sample size was established based on mental health adaptation practice, following previous studies. Schools were selected from two large areas, with some of the schools inappropriate for this research. Primary schools were less relevant to the study as they are unlikely to be attended by adolescents. Only the schools with the potentiality to implement contemporary practices were included in the sample. Thus, the findings and interpretations of the survey only applied to those particular schools in Dammam. During July 2012 to October 2012, phone calls were made to all the relevant schools in Dammam. There were three specific reasons for this.

Firstly, to verify the database of the schools, particularly the high schools, the names and addresses of schools were double-checked. Some discrepancies were found as some of the schools were located in different places from those reflected on the mailing list. This enabled the questionnaires to be delivered to the correct addresses of the appropriate schools. Secondly, attempts were made to gain official permission from schools to participate in the study and consent to receiving and completing the research questionnaires. Of 30 schools contacted, only 8 declined taking part. These 8 were discarded from the list. Finally, the phone calls enabled the identification of suitable adolescent participants for filling in the questionnaire. Almost half the schools agreed to identify potential respondents, although the researcher was permitted to identify potential respondents and deliver the questionnaires. Response accuracy depends on questionnaire administration and respondent appropriateness (Chenhall & Langfield-Smith, 1998b). In total, 4 schools declined to distribute the questionnaire. Ultimately, the sample size was 22 schools. It is noteworthy to mention that Saudi schools implement gender segregation, and a male researcher is not allowed to deal directly with the female pupils. Thus, the researcher contacted the head of school to administrate the instruments to the girls.

6.6.2 (2) Clinical sample: n = 170, age range 13-18 from mental health hospitals

The researcher contacted the two main mental health provider hospitals in Dammam city, to enquire about their ethical approval procedures, and to obtain initial information on the number of patients attending out-patient clinics and the approximate nature of their cases, in particular emotional disorders, including social phobia. On average, about 30 adolescents with emotional disorders as well as social anxiety were found to attend the two hospitals daily. However, no exact figures or statistics were available, due to the lack of systematic recording.

In Dammam city, mental health services are provided by a number of private and governmental hospitals and clinics. There were two hospitals selected for this study based on the availability of adolescents with a social anxiety disorder diagnosis at these hospitals. They were: Al-Amal Complex for Mental Health in Dammam (ACMHD) (*n* = 91, 53.5%) and the Primary and Community Mental Health Centre (PCMHC) (*n* = 79, 46.5%). Other services like internal medicine or paediatrics were excluded. While other hospitals have psychiatric specialists, these are for adults and therefore not suitable to the adolescent sample of this study.

One hundred and seventy adolescents aged 12-19 years were sampled from the above two out-patient. Patients had been referred to the psychiatric hospitals from a variety of sources such as primary care clinics or schools for a six-month period. Following a clinical interview, they received a social anxiety disorder diagnosis earlier according to *DSM-IV* or *ICD-10* criteria. First-time referrals only were included in the initial stage of the study, which was started prior to their receiving treatment. Over four months (July to October 2012), 212 patients were recruited. Using the *DSM-IV* criteria, an independent diagnostic assessment was used for stage two of their treatment.

Self-administered instruments were used for this study. To avoid confounding factors such as cognitive capacity, illiterate adolescents and those with learning disabilities (*n*=12) were excluded. Most of the participants come from villages around Dammam or the area of Al Badu, where not all citizens are literate. Fourty-two participants failed to complete the instruments and respond to the researcher’s calls for

unknown reasons. A hospitable environment was arranged by the researcher by offering snacks and drinks and a comfortable place to sit while completing their questionnaire at the clinics. In total, these 42 participants were excluded, leaving a total of 170 participants who agreed to take part in the research. The participants were aged between 12 and 19 years (M = 16.80, SD = 1.02); 52 were males (30.6%) and 118 female (69.4%).

Most of the patients were referred to the two above-mentioned hospitals (ACMHD and PCMHC) because of their involvement in the National Family Safety Programme. At least one or more mental health disorders – such as social phobia, panic, depression, general anxiety, stress disorder or anxiety disorder – had been found in the majority of the patients when they were interviewed by the researcher in the first stage. A social anxiety disorder was the key focus at these two hospitals.

6.6.3 (3) British sample

Snowball sampling was used to gather data from a random sixth form college in the UK (n = 64), age range 16-17 in order to compare them with a comparable number of counterparts from Saud Arabia. Ethnicity was assessed by asking the participants about their background. In this respect, participants who were not White British were excluded.

6.6.4 Questionnaire package

The purpose of the survey questionnaire in this study is to collect information about social anxiety, quality of life, social interaction, cognitive features and culture.

6.6.5 Choosing appropriate measures for social anxiety

Research measures were selected based on their simplicity and their suitability for the study sample and age groups in the present study. The measures research instruments for social anxiety were selected if they covered strategies, theories, descriptive scales and models which are associated with social anxiety. Psychologists were contacted to obtain their views on the suitability of the scales items for Saudi students' level of understanding.

In total, eight scales were selected:

The eight scales used in this study were: Social Anxiety Scale for Adolescents (SAS-A); Social Phobia Inventory (SPIN); Social Interaction Anxiety Scale (SIAS); The World Health Organization's Quality of Life Questionnaire (WHOQOL-BREF); Brief version of the Fear of Negative Evaluation Scale (BFNE); Individualism-Relatedness (Collectivism) Scale (Kirsh & Kuiper, 2002). Two of the eight questionnaires utilised in this research have already been translated and validated into Arabic, SPIN and WHOQOL-BREF, the former in Egypt and the latter in Kuwait. Therefore, due to linguistic variation (Egyptian Arabic is different from the Arabic language spoken in the Persian Gulf Arab countries), the only translation of SPIN was redone in order to verify its reliability.

Social Anxiety Scale for Adolescents (SAS-A) (Garcia-Lopez, Olivares, Hidalgo, Beidel & Turner, 2001).

The Social Anxiety Scale for Adolescents (SAS-A) was selected to be translated into Arabic because it is a well-developed and widely used test of social anxiety. SAS-A consists of 22 items: 18 descriptive self-statement and 4 filler items. Each item is rated on a 5-point scale ranging from 1 (*not at all*) to 5 (*all the time*) (Garcia-Lopez, Olivares, Hidalgo, Beidel & Turner, 2001). La Greca and Lopez (1998) revealed a three factor sub-scale of the SAS-A: Fears of Negative Evaluations (FNE); Social Avoidance and Distress specific to new situations or unfamiliar peers (SAD-New); and a sub-scale that reflects generalised Social Avoidance and Distress (SAD-General).

This scale has been chosen due to the fact that it is one of the most empirical supported scales of social anxiety in adolescence and is highly recommended to be used during measuring clinical evaluation (e.g., Kearney, 2005). It has not previously been used in Saudi Arabian society.

Social Phobia Inventory (SPIN) (Connor et al. 2000).

The Social Phobia Inventory (SPIN) was developed by Connor et al. (2000) to measure social anxiety, fear, symptoms of physiology and avoidance of social situations. SPIN contains 17 items that are rated on a scale from 0 to 4 *(not at all, a little bit, somewhat, very much and extremely*), with higher scores corresponding to greater

distress. The full-scale scores thus range from 0 to 68. Ragheb et al. (2007) examined the psychometric properties of the Arabic version of SPIN by translating the scale into Arabic in Egypt to determine its reliability and validity for measuring social phobia in their target population. As Garica et al. (2001) stress, cross-cultural examination of social anxiety measures is essential in order to specify their suitability for cross-cultural utility. Further translation of SPIN has been undertaken in the current study due to potential cultural differences between Egypt and Saudi Arabia.

The results of studies conducted in different locations (e.g., Connor et al., 2000; Carleton et al., 2010; García-López et al. 2010) indicated that SPIN is a self-report instrument with acceptable psychometric properties. SPIN proves to be a useful scale in both practice and research assessing the presence of social phobia in both the clinical and community population.

Social Interaction Anxiety Scale (SIAS) (Mattick & Clarke, 1998).

The Social Interaction Anxiety Scale (SIAS) (Mattick & Clarke, 1998) is a 20-item self-report measure that assesses complementary aspects of social phobia and reflects anxiety in social interaction situations. Items are rated from 0 (*not at all characteristic or true of me*) to 4 (*extremely characteristic or true of me*). In dyads or groups, participants rate how well items about anxiety in social interactions describe them. It has been frequently used and exhibits good reliability and validity.

This scale has been selected for various reasons. Empirical studies (e.g., Heimberg & Turk, 2002) demonstrate its psychometric parameteters, and excellent construct validity and reliability. As Brown (1998) states, SIAS can distinguish between social phobia and other anxiety disorders. Moreover, social phobia patients and agoraphobic patients can be differentiated by using SIAS (Mattick and Clarke, 1998).

World Health Organization's Quality of Life Questionnaire (QoL) (WHOQOL-BREF).

The World Health Organization's Quality of Life Questionnaire (WHOQOL-BREF) was developed as an international cross-culturally comparable Quality of Life assessment instrument. WHOQOL-BREF is a 26-item instrument consisting of four domains: physical health (7 items), psychological health (6 items), social relationships

(3 items), and environmental health (8 items); and two overall QoL and general health items. All scores are transformed to reflect 4 to 20 for each domain, with higher scores corresponding to a better QoL. There is no overall score for the WHOQOL-BREF. The questionnaire was translated into Arabic. Al-Fayez and Ohaeri (2011) modified the framing of some items of the WHOQOL-BREF in order to make them appropriate for school-age students in Kuwait. Firstly, the WHOQOL has no items on "school". Secondly, high-school students are entirely dependent on their parents for some needs. Thirdly, by law, they are prohibited from engaging in romantic sexual relationships. Subsequently, researchers have modified the following items of the WHOQOL-BREF to read thus: *How satisfied are you with the money available in your family for your care; how satisfied are you with your ability to do your school work; how satisfied are you with your sexual feelings; how satisfied are you with access to health services and how satisfied are you with the transportation facilities available to you.*

WHOQOL-BREF is noteworthy because of the supportive evidence that has been provided in order to obtain the cross-cultural validity of this scale (Skevington, Lotfy, and O'Connell, 2004). It has been selected because it has wide ranging uses in research on both community and clinical samples. WHOQOL-BREF covers a range of aspects in agreement with wide international consensus. WHOQOL-BREF is based on a cross-culturally sensitive concept and is available in most of the world's major languages; hence it is appropriate for use in multinational collaborative research. In addition, the WHOQOL-BREF can generate a profile of four domain scores within a relatively small item set of 26 items.

Brief version of the Fear of Negative Evaluation Scale (BFNE) (Leary, 1983).

The Brief version of the Fear of Negative Evaluation Scale (BFNE) contains 12 items describing fearful cognitions. BFNE was developed by Leary (1983) to measure anxiety associated with perceived negative evaluation. Eight of the items describe the presence of fear or worrying, while the other four items describe the absence of fear or worrying.

A frequently used scale in social anxiety research, BFNE has practical advantages (Rodebaugh et al., 2004). Weeks et al. (2005) argue that the BFNE scale

appeared to be more strongly related to social anxiety than to anxiety sensitivity or depression. For this very reason, this scale has been chosen in this study.

Self-Referent Adjective Questionnaire (SRAQ). (Kirsh & Kuiper, 2002).

The Self-Referent Adjective Questionnaire (SRAQ) (Kirsh & Kuiper, 2002): individualism and relatedness are major constructs in the personality, clinical, and social domains of psychology that show how people associate themselves with others. Individualism is seen as the separation of the self from the community, and a sense of mastery, whilst relatedness is characterised by a focus on attachment and harmony with others. The Individualism-Relatedness Scale is used here to measure cultural differences with regard to perceived social anxiety in the two culturally different samples. The researcher has had contact with one of the authors of this instrument to obtain his suggestions in terms of comparing items of the back-translated version with those of the original. Professor Kuiper went through the scale and found similarity ratings between the original English items and the corresponding back-translated items. He pointed out that by-and-large the back-translated items look reasonable, but there are some problem items which received low (either 4 or 5) similarity judgments. Two anchors used on the rating scale are problematic and require great caution, as the resulting judgments using these anchors are quite different judgments from the original English. He suggested that some items be redone, translating them into another Arabic phrase and then back-translated.

This scale was chosen because it assesses both positive relatedness and individualism. Positive relatedness refers to the giving and receiving inherent in warm and trusting healthy relationships, whereas positive individualism refers to a sense of autonomous self-determination, independence, and mastery (Kirsh & Kuiper, 2003). Since the present study was conducted in a cross cultural context, use of this scale seems relevant, in order to detect and control for cultural differences on relatedness-individualism dimension.

Beck Anxiety Inventory (BAI) (Beck & Steer, 1990).

The Beck Anxiety Inventory (BAI) is a 21-item self-report that measures anxiety in adults and adolescents. It has already been translated and validated into Arabic. Even

though the age range for this scale is from 17 to 80, it has been utilised in some studies with younger adolescents aged 12 and older. Each of the items on the BAI is a simple description of a symptom of anxiety in one of its four expressed themes: (1) subjective, (2) neurophysiologic, (3) autonomic or (4) panic-related. The BAI can be completed in 5 to 10 minutes.

BAI is a useful tool in order to assess a broad range of anxiety symptoms in adolescents according to the high rates of comorbidity with generalised anxiety and other anxiety disorders. It has the ability to distinguish between anxiety and depressive symptoms which offers certain advantages over the other scales being used in this thesis. Therefore, BAI was chosen to be one of the study scales in order to measure convergent validity and to instigate any commodity.

Social interaction.

This scale was designed by the researcher to understand the extent to which adolescents are socially interactive; the questions were constructed based on earlier research on social interaction (see pilot study, chapter 7). The questionnaire on social interaction has been devised from other existing questionnaires. The rationale behind this was to create a questionnaire that could measure social interaction itself rather than measuring social interaction anxiety, as in the Social Interaction Anxiety Scale (SIAS).Questions on social interaction were adapted in order to select suitable research cases.

Demographic questionnaire

Demographic information were collected by a demographic questionnaire recording gender, age, educational status, and number of siblings, family and socio-economic data such as father's and mother's educational status, standard of living and household ownership.

6.6.6 Cross-cultural validity of questionnaires

Many researchers in different countries determened that detecting social phobia through several questionnaires is cost-effective and can be done in a short period of

time. This procedure helped gain insights into social anxiety from different samples with different cultural backgrounds (Mas et al., 1998; Moraes et al., 2002).

Borsa, Damásio, and Bandeira (2012)argue that instruments compiled for one socio-cultural reality can be applied to another socio-cultural reality if it is adapted, translated and re-validated to reach cultural equivalence. Historically, instruments were adapted from one culture to another simply by translation or literal comparison from the original version (Moraes et al., 2002). More recently, researchers have acknowledged the importance of translating the measurement instruments linguistically and culturally in order to attain content validity and culture suitability (Beaton, Bombardier, Guillemin, and Ferraz, 2000; Guillemin et al., 1993). Furthermore, a translation and back-translation procedure was taken to cross-check meaning of translated items with the original.

As the Arabic versions of the scales have not previously been used in Saudi Arabia (except BAI), its reliability and validity needed to be established before applying it to a Saudi sample which is discussed next.

6.6.7 Questionnaire translation

The original instruments were in English. The researcher selected these questions for the present study as they are well-designed and widely-used, and then translated them into Arabic using professional bilingual translators. The questions were reviewed as psychometric concepts before administering them. The researcher followed the same procedures as Bristlin (1970) for the translation of instruments in order to have the valid deductive approach discussed above. In order to translate the study scales into Arabic, first the researcher requested and received the permission of the authors.

The process of translating and culturally adapting the questionnaire took place in five stages: (1) translations by a bilingual psychologist from English to Arabic, (2) back-translation from Arabic to English by two qualified bilingual professionals, (3) bilingual individual’s technique and (4) the pre-test procedure for developing the (5) final version.

Initially, two native Arab psychologists who had experience in treating social phobia translated the scales into Arabic language. They were fluent in the English language. As a result, they received directions about the sample (adolescents from public schools) with the instruction to use simple and well-known words according to the cultural context. The aim was to have literal and semantic translations with words which can have influence on the local cultural context with the overall aim of reproducing responses in accordance with the general emotions of that context. Thus, words that have the same literal meaning resulting in different influences were avoided, such as fear, panic and dread and so on. The item scoring was related to their subjective impression scoring of the level of difficulty they faced during the translation. They used a numeric scale which ranged from (0) = *very difficult*, to (100) = *very easy*. Problematic items were re-evaluated during the appraisal stage and a consensual version was developed. Items that may be perceived as difficult by the research population were also discussed in the pre-test stage.

In addition to this, the translation was given to different bilingual translators for an independent back-translation. Two translators were fluent in Arabic and native speakers of English living in Saudi Arabia with no knowledge of the original English version. Both back-translated versions and the originals were given to the authors who were apprised of the original context in order to pinpoint potential discrepancies. To develop the Consensual Version (CV), the translated version was selected according to equivalence, that is, same semantics (Do the words have the same meaning?), same idiom (Is there any equivalence of slang and colloquial expressions?), same conceptual meaning (Is there homogeneity of concepts between the cultures?), and same term experience (Beaton et al., 2000). It can be noted that some items from the conceptual version consisted of combined items from the previous versions.

The same two translators were asked to generate at least two alternative translations. For a translation to be accepted, it had to occur among the alternatives of both translators. The translation was as literal as possible. Next, the Arabic translations of the questionnaire were presented to two bilingual English–Arabic speakers, both of whom speak Arabic natively, for back-translation into English. The quality of the back-

translated versions of all the questionnaires was compared to the Arabic questionnaires by two other professionals. Finally, two native English speakers from the Department of Psychology at the University of Bedfordshire were asked to compare qualitatively the back-translated items with regard to how similar they were in meaning to the original scale items.

Then, to ensure the correctness of the translation of both the Arabic items into English and vice versa, the researcher gave two English copies and two Arabic copies to four Arab speaker professionals: two lecturers in Al Imam Mohammed Bin Saudi University, who translated the questionnaires from English to Arabic, and two lecturers in King Abdul-Aziz University, who translated the questionnaires from Arabic to English (back-translation). Upon receiving these questionnaires, the researcher had a tele-conference with them and discussed possible cultural adaptations. For instance, some items in all questionnaires were discussed to find appropriate words in Arabic. Finally the comments, feedbacks, suggestions etc. were reviewed and scales were finalised, before using in the pilot study. (See Appendix 2)

6.7 **Pre-test**

The process of translating the questionnaire items into Arabic and the cultural adaptation of the scales was pilot tested in early 2011 on Saudi adolescents in a public school in Dammam, the capital of the Eastern Province of Saudi Arabia. A pre-test was administered to adolescent participants (see pilot study, chapter 7), aged 13 to 18 years, from Saudi schools in the United Kingdom. The objective was to gauge the acceptability of the instruments to the participants in order to make any changes. In this respect, fifteen adolescents pointed out that the consensual version questions were difficult to understand and suggested easier options. Accordingly, the Arabic version (AV) of scales was developed with some explanations in brackets. The final stages of the Arabic version were approved by the authors of the original version, ensuring understanding of all questionnaire items.

The translation version was found to be practically identical in the form of statements and instrument categories for the items. Some items were similar to the

original items chosen from the back-translation version because of its simplicity, and were appropriate to this age group of adolescents in this particular research. Both versions were seen to be appropriate. The researcher tried to make minimal changes to the psychometric properties and structure of the original instruments in an effort to retain the same meaning states and item scoring of the original scales in the (Saudi-) Arabic version.

6.8 The Survey Package

The survey package consisted of a cover letter, the questionnaires and a glossary, translated into Arabic. The cover letter included the study objectives, study usage purpose, participation-related benefits and the importance of the participation. Respondents were assured of confidentiality and anonymity throughout the study. Additionally, an executive summary of the research finding was offered to participants. In fact, the content of the cover letter was to increase the response rate (Saunders et al., 2003). A glossary was provided on psychological and mental-health-related terminology to ensure that the respondents were as clear and informed about the study as possible.

6.9 Research Procedure

In the first phase, the researcher applied to two main mental health hospitals in Dammam for official approval from the Ministry of Health and presented the project to its Ethics Committee, which gave approval for the PCMHC. The PCMHC then gave their agreement, based on the Ministry's decision.

In the second phase, the researcher met the head of the psychology departments and/or the person in charge of the out-patient clinics to explain the research protocol and the sample target of emotional disorders. The researcher arranged to liaise directly with the psychiatrists. In this way, cases with the initial clinical diagnosis of emotional disorders were referred to the researcher directly or after the first appointment. The researcher met with each adolescent, explained the aims of the study, and provided them with the information letter and consent form. If they consented to participate in the

study, the researcher proceeded with data collection and then interviewed the adolescents to confirm the diagnosis.

6.10 Ethical Considerations

Research ethics are increasingly taken into consideration in developing countries, many of which are trying to reach clear milestones for research ethics as a result of increased interest in research and attention to human rights (Dixon-Woods, Young & Heney, 1999). Organisations that regulate the relationship between researchers and participants have thus become increasingly concerned to observe the ethics of research for adults and children alike (Benatar, 2002; Hyder, Wali, Khan, Teoh, Kass, and Dawson (2004).

The present research project was designed in line with the British Psychological Society (BPS) guidelines (2010). Potential participants were given detailed written information about the study prior to giving their written consent. Due to the nature of this project, participants were not expected to experience problems or significant distress resulting from the research procedures. They were informed about their rights to receive an explanation of the research from the beginning and to ask questions and request clarifications at the outset or during the study. They were also told that they had the right to withdraw from the study at any time, without any effect on their future treatment. Moreover, since the local supervisor of this research was a clinical psychologist, it was possible to provide rapid access to suitable clinical services when needed.

6.11 Ethics in Saudi Arabia

Despite the growing demand for research in Saudi Arabia, there is still a need for ethical considerations to be fully incorporated into clinical and academic research. Although each hospital has its own procedures for obtaining ethical approval, they all have the same basic ethical principles. In the present study, participants were provided with information about the study and what this involved prior to taking part. If they expressed an interest, they were asked to give both verbal and written consent.

The researcher faced some difficulties in obtaining ethical approval for the research, as this had to be given by two different hospitals. In general, all hospitals required the researcher to present a summary of the research and copies of the tools to be used in data collection and of the consent forms to be signed by participants. In addition, each requested a letter from the authority responsible for the research and from the researcher. The study was approved by the Commission delegated by the Ministry of Health. The ACMHD and PCMHC in Dammam accepted that approval, which was sufficient for the research application in that setting. (See Appendices 7 and 9)

In the event of participant distress during data collection, the researcher took the following actions. First, before the data collecting session, the researcher clearly explained the details and reason for asking them to participate in this study in the informed consent form letter. In addition, the researcher emphasised that all questionnaires would be completed anonymously and the information provided would be treated with the strictest confidence by the researcher and his study director. According to the British Psychological Society (BPS), "Researchers will respect the privacy of individuals, and will ensure that individuals are not personally identifiable" (BPS, 2010, p. 9). This is to ensure participant confidentiality, as participants would likely to be concerned and may alter their responses if they discovered that their responses were posted in public. The BPS adds (2010, p. 9):

> *They will respect confidentiality, and will ensure that information or data collected about individuals are appropriately anonymised and cannot be traced back to them by other parties, even if the participants themselves are not troubled by a potential loss of confidentiality.*

Even if research candidates initially consented, they had the right to change their mind and withdraw from the study at any point. Finally, to ensure that participants' rights were respected, the researcher gave an informed consent form to potential participants before data collection began. It involved giving them a written document that contained a description of the study's procedures and then asking them to sign it.

6.12 Diagnosis and Inclusion Criteria for Social Anxiety Disorder

A disorder should be classified according to an internationally acknowledged classification system, preferably to the latest version of *DSM*; at the time *DSM-IV*. The use of a severity rating scale alone is insufficient and is not equivalent to a clinical diagnosis. Diagnosis should be made by a psychiatrist or by a non-psychiatric physician experienced in anxiety disorders and who is trained in the use of structured interviews. They should confirm the diagnosis and exclude relevant psychiatric co-morbid disorders.

Further descriptive parameters, like severity (e.g., degree of anxiety, degree of phobic avoidance), as well as a detailed history (e.g., duration of SAD [social anxiety disorder], degree of functional impairment and previous treatment outcome), were recorded. In addition to the diagnostic criteria, cut-off scores based on appropriate scales were used to include patients with a certain degree of severity.

6.13 Exclusion Criteria for Social Anxiety Disorder

Patients who meet the following criteria were excluded from the study:

1. A current or recent history of major depression (within six months of study entry).
2. Predominant depressive symptoms (not meeting the *DSM-IV* criteria); patients should have low severity scores.
3. Predominant or severe symptoms of another anxiety disorder.
4. Schizophrenia or other disorder with psychotic symptoms.
5. Bipolar disorder.
6. A current or recent history of substance abuse disorders (within six months of study entry).
7. A primary or severe Axis II disorder (personality disorders).
8. Patients with ongoing specific psychotherapy for SAD should not be included in confirmatory trials.
9. Finally, patients with ongoing relevant psychotropic co-medication for SAD were excluded.

6.14 Summary

This chapter discussed the methodology approach used in this thesis. It reviewed the research objectives and addressed philosophical and epistemological issues in research. This was followed by the research design, the research strategy, data collection methods, and issues of reliability and validity. The sampling frame, questionnaire design, quantitative data analysis methods used in this study and administration of the survey questionnaire to three different groups of adolescents were then addressed. The final section discussed the diagnosis and inclusion criteria for social anxiety disorder.

CHAPTER SEVEN

7 THE PILOT STUDY

While social anxiety is a common phenomenon in most countries, its symptoms may manifest differently across different cultures (Zender, 2001). The objective of this study is to examine how social anxiety and maintenance of QoL are associated in adolescents from two different cultural background (the United Kingdom and Saudi Arabia) whose social and cultural realities diverge in many respects, for instance, in terms of individualism and collectivism.

7.1 Aim of the Pilot Study

The aim of this pilot study is to explore the reliability and validity of the researcher's new, multi-dimensional scale for measuring social anxiety among adolescents in Arabic cultures which might have value in both diagnosis and research in Arab countries such as Saudi Arabia. At the same time, it is designed to develop mechanisms for measuring the quality of life in a Saudi population.

7.2 Hypotheses to be tested

1. The Arabic versions of the scales used in this research are reliable.
2. The scales are valid to be used in the target population.
3. Social anxiety, quality of life, social interaction, cognitive evaluation, and cultural tendency are correlated variables.

7.3 Method of the Pilot Study

In order to indicate how social anxiety affects quality of life in Saudi Arabian and White British adolescents, this study consisted of several stages. Firstly, to ensure that the six psychological scales (see below) can be administered to Saudi adolescents who do not necessarily speak English, this entailed a rigorous translation process (see section 5.9.4 for more details on translation and back-translation procedure). Then a

sample of Saudi adolescents located in the UK was pilot tested using the questionnaires in order to determine any patterns of social anxiety and quality of life indicators.

Stage 1: Conducting 'translation and back-translation methodology' to provide Arabic versions of six scales, variously on social anxiety (including different aspects), QoL, and individualism-collectivism, from English into Arabic.

Stage 2: Administering the Arabic versions to Saudi adolescents in Saudi schools located in the UK: a pilot study to examine applicability of the scales in the target population.

7.3.1 Stage 1

The translation and back-translation procedure is covered in full in section XXX.

7.3.2 Stage 2

A pilot study was conducted in order to: (1) ensure correctness and the clarity of the instruments; (2) identify problems that might appear in the main study; (3) conduct preliminary statistical tests on the data; and (4) provide possible relational/structural models between variables.

7.4 Participants

First, four Saudi schools in the UK were selected with a clustered random sampling method from the list of Saudi schools located in the UK. At this stage, 103 secondary and high-school students (female and male, age-range: 14 to 19 years) were recruited by advertisement. They either completed the questionnaires manually or online.

7.5 Measures

The six scales were described in section 6.8.1 included Social Anxiety Scale for Adolescents (SAS-A); Social Phobia Inventory (SPIN); Social Interaction Anxiety Scale SIAS; The World Health Organization's Quality of Life Questionnaire

(WHOQOL-BREF); Brief version of the Fear of Negative Evaluation Scale (BFNE); Individualism-Relatedness (Collectivism) Scale.

7.6 Procedure of the Pilot Study

The pilot was conducted during the first term of the 2011/12 academic year. Participants were male and female from four Saudi secondary and Saudi high schools in the UK. 23 (22.3%) students completed the questionnaire manually and 80 (77.7%) online. In order to examine test retest reliability, 25 of the whole sample were randomly selected and asked to re-complete the questionnaires after one week.

7.7 Ethics

All information about the study and its purpose was provided to schools through the Saudi Arabian Cultural Bureau in London. Cover letters from the University of Bedfordshire and from the Saudi Cultural Bureau were attached with the questionnaires. All schools agreed to participate in the study. The research aims were explained at the start of the online survey. Participants were informed that the questionnaires should be completed anonymously and all information provided by them would be treated with the strictest confidence by the researchers. Participants were further advised that they could choose not to participate and had the right to withdraw from the study at any time. Participants were assured of anonymity and confidentiality. (See Appendix 8).

7.8 Data Analysis

All data were analysed using SPSS version 19.0. First, to verify any possible differences between two samples (manual and online), a series of independent *t*-tests were conducted. This was done to rule out any potential selection bias. A series of Cronbach's alphas was used to measure internal consistencies for each scale. A sample of 25 adolescent students in the age range of 14 to 19 years was re-tested two weeks after first administration the Arabic version of all scales. Test–retest reliability of all instruments was assessed by intraclass correlations. A series of Pearson correlations

were performed to explore intercorrelations between scores of various measures. The correlation coefficients between variables were deemed as the index of convergent/divergent validity. Kraut et al. (2004) recommend to start with small pilot projects to determine how collecting data using an online method might differ from conventional ones to avoid low response rates.

7.9 Results of the Pilot Study

Descriptive statistics

In total, 103 students (boys 48 and 55 girls; response rate, 100%) were completed the questionnaires. 23 students from secondary schools and 80 students from high schools. Age range was from 14 to 19 years old (See table 7.1).

Table 7.1: Demographic characteristics of participants

Demographics	Frequency	Percentage	Mean	Std. Deviation
Sex				
Male	48	46.6%		
Female	55	53.4%		
Age			17.07	1.59
14	4	3.9%		
15	18	17.5%		
16	19	18.4%		
17	16	15.5%		
18	17	16.5%		
19	29	28.2%		
Education Level				
Secondary School	23	22.3%		
High School	80	77.7%		

Note: N=103

Table 7.2: *T*-test parameters between online vs. paper and pencil (manual) groups

	Online vs. Manual	*N*	Mean	Std. Deviation	*T* value	*p* value
SAS-A	Online	75	46.62	11.00	1.72	.08
	Manual	28	42.46	10.57		
SIAS	Online	75	50.94	9.42	1.32	,19
	Manual	28	48.03	11.28		
SPIN	Online	75	45.86	11.24	1.54	.12
	Manual	28	41.92	12.21		
BFNE	Online	75	30.44	6.65	2.00	.04
	Manual	28	27.57	5.93		
WHOQOL	Online	75	88.05	13.20	-.006	.99
	Manual	28	88.07	13.97		
SRAQ	Online	75	157.61	22.36	-1.01	.31
	Manual	28	163.10	29.72		

Statistical Analysis

As shown in table 7.2, the means in two groups are not significantly different except for BFNE; the mean in online group is slightly higher than that in the manual group.

Reliability

To show test-retest reliability, intraclass correlations were conducted between test and retest findings on the scales. SAS-A test-retest reliability was significant (r = .83, p < .01). Cronbach's alpha shows that internal consistency of SAS-A being 0.86. (all p < .01). SPIN reliability was analysed by Pearson's correlation coefficients for SPIN total scores. The findings show that SPIN total scores were r = .87 (p < .01). Cronbach's alpha shows that internal consistency of SPIN as 0.89. (all p < .01). The test-retest correlation for the SIAS in adolescent population was calculated, the value being 0.75. The internal consistency of the SIAS was also calculated, the value of Cronbach's alpha being 0.81 for this scale (all p < .01). Reliability coefficient of BFNE was 0.72 with a high internal consistency (0.72). WHOQOL-BREF reliability was 0.76., with a high internal consistency (0.87). SRAQ reliability was 0.72. The results show a very high internal consistency for SRAQ (0.94).

Intercorrelations: Divergent validities

Pearson correlations between variables are reported in table 7.3. In the pilot study, WHOQOL (which has been previously validated in Arab countries) was deemed as an external criterion to examine validity. The significant inverse correlation between the external criterion and total scores on remaining measures can be regarded as divergent validities.

Table 7.3: Intercorrelations (2-tailed) between study variables

		SAS-A	SPIN	BFNE	SIAS	WHOQOL-BREF	SRAQ
SAS-A		1					
SPIN	Pearson Correlation	.740**	1				
	Sig. (2-tailed)	.000					
	N	103	103				
BFNE	Pearson Correlation	.635**	.721**	1			
	Sig. (2-tailed)	.000	.000				
	N	103	103	103			
SIAS	Pearson Correlation	.730**	.771**	.611**	1		
	Sig. (2-tailed)	.000	.000	.000			
	N	103	103	103	103		
WHOQOL-BREF	Pearson Correlation	-.305-**	-.351-**	-.272-**	-.353-**	1	
	Sig. (2-tailed)	.002	.000	.006	.000		
	N	103	103	103	103	103	
SRAQ	Pearson Correlation	-.178-	-.222-*	-.144-	-.170-	.384**	1
	Sig. (2-tailed)	.073	.024	.147	.086	.000	
	N	103	103	103	103	103	103

Note: SAS-A = Social Anxiety Scale- Adolescents; SPIN = Social Phobia Inventory, BFNE = Brief version of the Fear of Negative Evaluation Scale; SIAS = Social Interaction Anxiety Scale; WHOQOL = World Health Organization's Quality of Life Questionnaire; SRAQ = Self-Referent Adjective Questionnaire.

* = $p < .01$, ** = $p < .001$

7.10 Discussion

There is still no consensus about the best way to perform a cross-cultural adaptation, since little research has been done in this area to establish what is crucial and what is supplementary in this process. Nevertheless, some guidelines have been increasingly followed, and this study used two independent translators and back-translators, in order to promote the comparison between the versions, the identification of errors in some items and the choice of the most adequate terms. As it is being

currently proposed in the literature (e.g., Guillemin et al., 1993), this study valued the semantic equivalence, and not the literal equivalence between terms, since the literal equivalence is not always the best one to express concepts or situations from the new population under investigation.

One way to facilitate the translation of terms that are more adequate to the general population and thus avoid the use of technical terms (for example, "تواصل" communicate) is to use a translator into Arabic who has no background in the health field, which was not done in this process for practical reasons, instead using two authors of this study in the translation. However, the inappropriate terms for the target population could be reviewed and replaced during the application of the pre-test. The "difficulty gradation" made by the translators is a subjective evaluation that was not used as a criterion for choosing the items of the final version. It was used only as a way to highlight the "problematic" items for their appraisal in the pre-test.

The inclusion of slang was not accepted, although some was suggested in the pre-test by the teenagers – for example, in Social Interaction Anxiety scales (SIAS), item 13, "اشعر بانني ساقول شيئ محرج" (I feel I'll say something embarrassing) – in order to avoid regionalisms and allow a greater use of the instrument nationwide, as well as due to the changes slang tends to undergo after some time. Changing the structure of the original instrument as little as possible was chosen, without including or excluding items of the scale, in order not to promote great changes in the psychometric properties and allow the comparison of both versions.

In the Arabic version, the study used the same item scores of the original instruments. With regard to the instrument title, although the term "جرد" is not a common word to the target population, the study chose not to adapt inventory to "مقياس" (scale), so that it did not have to change the initials of the abbreviation of the original scale and allow its better distinction from other social anxiety instruments – such as, for example, the Social Phobia Inventory. Therefore, it was suggested to this researcher to use the Arabian version of the SPIN and to explain the instrument title (along with its objectives) to the population under investigation, in order to avoid possible misinterpretations.

The cross-cultural adaptation attempts to assure a consistency in the content and face validity between the versions of the questionnaire (original and target language). However, it does not assure that the reliability and criterion validity of the original version would be preserved. Subtle differences in life habits in different cultures may lead an item of the questionnaire to be more or less difficult to understand, which may change the psychometric and statistical properties of the instrument. Therefore, to make the cross-cultural adaptation be fully achieved, it is also necessary to perform a study of measurement equivalence, assessing the reliability and validity of the new version.

Instruments developed in a foreign language need a careful cross-cultural adaptation process in order to be used in a different sociocultural reality. The stages which the Arabian version of the study scales went through promoted the availability of another instrument to evaluate social phobia in population groups, with a good understanding and acceptance among teenagers from public schools.

This study provides evidence that the Arabic versions of the instruments have good reliability, validity and other psychometric properties for the screening of social phobia among Saudi Arabia's adolescents. The test–retest reliabilities (.75-.83) and the internal consistency coefficients (.72-.94) for instruments in the present pilot study were similar to those of previous reports (e.g., Albano, 1995; La Greca & Lopez, 1998; Mattick & Clarke, 1998; Safren et al. 1997). The psychometric analyses of the SAS–A is very similar to that obtained in previous studies on the SAS–A (e.g., La Greca & Lopez, 1998). It can be said that the findings provide useful and important support for the applicability and utility of SAS-A in the assessment of social anxiety among adolescents in the target population. The results of this study indicate that the SPIN total score exhibited satisfied higher internal consistency in Arabic similar to those in previous studies (e.g., Conner et al., 2000; Antony et al., 2006). Findings of BFNE in terms of internal consistency and test–retest reliability are consistent with previous research (e.g., Leary, 1983). The present findings provide acceptable reliability and validity for measuring social anxiety among Saudi adolescents. Intraclass correlation and the internal consistency coefficients show that the test–retest reliabilities for SIAS in the pilot study were high. Findings of the reliability and validity of WHOQOL-BREF

in this study is similar to the Arabic version in previous studies in other Arabic societies. (Ohaeri et al., 2009).

7.11 Summary of Pilot Study

To sum up, the results of this study support the factor structure and indicate higher values of internal consistency for most of the instruments' total scores, providing support for the use of all instruments among the Arabic-speaking adolescent population. To the researcher's knowledge, this study is the first contribution that reports psychometric data for using the Arabic version of a set of instruments in an adolescent community sample, particularly, in Saudi Arabia. Results from this pilot study led to obtain more two scales namely; a) anxiety and b) social interaction in order to have more evidence of construct validity. Thus, the researcher has included those scales in his main study. Future studies should determine their psychometric properties among Arabic-speaking clinical samples. There are, however, some limitations to be considered. First, the representatives of the study sample were limited. Thus, the pilot study did not investigate the relations between the Arabic version and other related measures. Secondly, the majority of participants were high school students (77.7%), thus caution should be taken when generalising the results to other populations such as students under 14 years old.

CHAPTER EIGHT

8 RESULTS

8.1 Study 1: Cross-sectional Study on a Community Sample

The overall aim of the cross-sectional study was to investigate the relationships between social anxiety, social interaction, quality of life and culture tendency. To achieve this aim, quantitative data were collected and analysed to address the following four research questions:

1. What is the prevalence of social anxiety among adolescents in Saudi Arabia as measured by SPIN and SAS-A?
2. What is the relationship between social anxiety and quality of life in Saudi adolescents?
3. What are the sex differences in social interaction anxiety, anxiety, social interaction, fear of negative evaluation, individualism-relatedness and quality of life?
4. What are the differences in social anxiety in association with demographic and personal characteristics among adolescents in Saudi Arabia?

The descriptive inferential statistics were used to present and summarise the results. The chapter is organised as follows:

- Demographic characteristics of the respondents.
- Some descriptive statistics of the main variables
- The relationship between social anxiety and quality of life in Saudi adolescents
- The differences in social interaction anxiety, anxiety, social interaction, fear of negative evaluation, self-referent adjective and quality of life related to boys and girls
- The differences in social anxiety in association with demographic and personal characteristics among adolescents in Saudi Arabia
- Results from clinical sample

- Results of cross-cultural differences
- Results summary.

The next section presents some descriptive statistics including frequencies, percentages means and standard deviations to investigate the individual set of observed variables measuring social anxiety, social interaction, cognitive aspect (fear of negative evaluation), positive relatedness, positive individualism and quality of life.

8.2 Demographic Characteristics of the Community Respondents

The overall response was 564 out of 700 questionnaires giving a response rate of 80%. Table 8.1 summarises the demographic characteristics of the sample. The results show that approximately half of respondents 291 (51.6%) were girls and 273 (48.4%) of respondents were boys. Of the respondents, 216 (38.3%) are aged 17 years. The next highest age category was ‘18 years old’ (150, 26.6%). Family size for 396 (70.2%) of respondents was between 5 and 10. This might reflect the common large family size in Saudi Arabia. Fathers’ educational level for 177 (31.4) of the sample was ‘higher education’ which *might indicate* academic knowledge obtained by men in Saudi Arabia in last decades has been increased. In contrast, educational level of 173 (30.9%) of the mothers was ‘primary’. Saudi women have faced many obstacles and challenges to enjoy official education which has caused the delay of official women’s education for 30 years since the establishment of the Saudi state. Of the respondents, 187 (33.4%) were of low socio-economic status. However, about three quarters of the respondents (406; 72.1%) belong to families owning their own house.

Table 8.1: Demographic characteristics of community participants

Demographic	Frequency	Percentage
Sex		
Boys	273	48.4%
Girls	291	51.6%
Age		
12	1	0.2%
13	11	2.0%
14	9	1.6%
15	41	7.3%
16	128	22.7%
17	216	38.3%
18	150	26.6%
19	8	1.4%
Education Level		
Secondary School	56	9.9%
High School	508	90.1%
Family number		
Between 3-5	80	14.2%
Between 5-10	396	70.2%
More than 10	88	15.6
Father education		
Primary level	91	16.1%
Secondary level	87	15.4%
High school level	172	30.5%
Higher education	177	31.4%
Postgraduate level	37	6.6%
Mother education		
Primary level	174	30.9%
Secondary level	76	13.5%
High school level	158	28.0%
Higher education	139	24.6%
Postgraduate level	16	2.8%
Family income		
5,000-10,000 SR	187	33.4%
10,000-15,000 SR	145	25.9%
15,000-20,000 SR	137	24.5%
More than 20,000 SR	91	16.3%
Accommodation		
Owning Housing	406	72.1%
Rental House	157	27.9%

8.2.1 Question 1: What is the prevalence of social anxiety among school students (adolescents) in Saudi Arabia as measured by SPIN and SAS-A?

Regarding students' reports of their social anxiety symptoms, the analysis for the levels of social anxiety symptoms showed that the majority of adolescents had no symptoms at all (39%, *n* = 220), while mild symptoms found were among 26.8% (*n* = 151); moderate symptoms were observed among 22% (*n* = 124); those with severe to very severe symptoms were 79 (12.3%). Using 34 as the cut-off score for social phobia (SPIN) suggested by Mattick and Clarke (1998), 34.3% (*n* = 145) of the students were considered suffering from social phobia.

In relation to subscales of SPIN, the analysis showed that the mean scores were as follows: Fear in social situations (*M* = 14.63, *SD* = 7.51), avoidance of performance or social situations (*M* = 6.55, *SD* = 4.07) and authority problems in social situations (*M* = 4.19, *SD* = 2.84). Using item analysis to examine the items that had the highest and lowest scores (see Appendix 4), the analysis showed that the mean items on SPIN subscale ranged from 2.05 (*SD* = 1.40) (item 15: *Being embarrassed or looking stupid are among my worst fears*) to 1.19 (*SD* = 1.27) (item 8: *I avoid going to parties*). The highest three items in addition to item 15 were item 12 (*M* = 1.94, *SD* = 1.41: *I would do anything to avoid being criticized*), item 5 (*M* = 1.93, *SD* = 1.25: *Being criticized scares me a lot*) and item 2 (*M* = 1.81, *SD* = 1.30: *I am bothered by blushing in front of people*).

This also goes for the highest three items that the adolescents reported being: very much to extremely experiencing social phobia symptoms as items 15, 12, and 5 had the highest percentage among all other items. The highest mean item scores (items 15, 12, and 5) belong to the fear of social situation subscale, while the lowest mean item scores varied among the three subscales. The results support the mean scores of the subscales mentioned above in (See Appendix 4) that fear in social situation was the highest reported subscale among the three subscales. In conclusion, adolescents suffer social anxiety (social phobia) at a mild to moderate level, and about one third of the adolescents showed positive symptoms of social phobia (score > 34). On the other hand,

fear in social situations found to be the high concerned and reported among adolescents compared to avoidance and authority problems subscales.

8.3 Reliability

Cronbach's alpha was calculated for all scales used in this study in order to examine the internal consistency. All of measures applied in this study were found to have high internal consistency, as displayed in table 8.2. The results for boys and girls appeared to be mostly identical.

Table 8.2: Internal consistency (α) for all study scales

Measure	Cronbach's Alpha			
	Total sample	Boys	Girls	Number of Items
SAS-A	.86	.86	.85	18
SIAS	.76	.75	.78	20
BAI	.85	.84	.84	21
BFNE	.82	.84	.81	12
SI	.73	.69	.78	9
SPIN	.87	.88	.86	17
SRAQ	.92	.94	.90	44
WHOQOL-BREF	.87	.86	.86	26

Note: SIAS = Social Interaction Anxiety Scale, BAI = Beck Anxiety Inventory, BFNE = Brief version of the Fear of Negative Evaluation Scale, SI = Social Interaction, SPIN = Social Phobia Inventory, SAS-A = Social Anxiety Scale- Adolescents, SRAQ = Self-Referent Adjective Questionnaire, WHOQOL = World Health Organization's Quality of Life Questionnaire.

In addition, Cronbach's alpha was calculated for each of the three subscales of the SAS-A in order to examine the internal consistency of the three subscales. One of the three subscales of the SAS-A was found to have high internal consistency, as displayed in table 8.3. In comparison, two subscales of the SAS-A were found to have rather moderate internal consistency. Consequently, results relating to these two variables should be treated with some caution.

Table 8.3: Internal consistency (α) for the Social Anxiety Scale for Adolescents SAS-A and SAS-A subscales

Measure	Cronbach's Alpha	
	Total sample	Number of Items
SAS-A total score	.86	18
FNE	.84	6
SAD-New	.59	8
SAD-General	.58	4

Table 8.4: Internal consistency (α) for the Social Phobia Inventory (SPIN) and its subscales

Measure	Cronbach's Alpha Total sample	Number of Items
SPIN total score	.87	17
Fear	.81	9
Avoidance	.66	5
Authority Problems	.61	3

Cronbach's alphas were also calculated for each variable measured using subscale of SPIN, WHOQOL, BAI and SRAQ. All measures were found to have an acceptable (.60 or above) level of internal reliability except the Autonomic subscale of BAI. (See tables 8.4, 8.5, 8.6 and 8.7).

Table 8.5: Internal consistency (α) for Quality of life (WHOQOL) and its subscales

Measure	Cronbach's Alpha Total sample	Number of Items
QoL total score	.87	26
Physical Health	.66	7
Psychological Health	.67	6
Social Relationships	.66	3
Environment	.72	8

Table 8.6: Internal consistency (α) for BECK Anxiety Inventory (BAI) and its subscales

Measure	Cronbach's Alpha Total sample	Number of Items
BAI total score	.85	21
Subjective	.69	6
Neurophysiologic	.71	7
Autonomic	.56	4
Panic-related	.67	4

Table 8.7: Internal consistency (α) for Self-Referent Adjective Questionnaire (SRAQ) and its subscales

Measure	Cronbach's Alpha Total sample	Number of Items
SRAQ total score	.92	44
Positive Individualism	.87	23
Positive Relatedness	.88	21

8.4 Inter-correlation between Study Variables: Validity Check

A Pearson's two-tailed correlation analysis was conducted between variables. The correlations found are reported in table 8.8.

Table 8.8: Intercorrelations (2-tailed) between study variables

	SIAS	BAI	BFNE	SI	SPIN	SAS-A	SRAQPI	SRAQPR	WHOQOL
SIAS	1								
BAI	.365**	1							
BFNE	.408**	.461**	1						
SI	-.300**	-.017	-.015	1					
SPIN	.504**	.383**	.596**	-.169**	1				
SAS-A	.540**	.378**	.516**	-.050	.611**	1			
SRAQPI	-.241**	-.006	-.006	.372**	-.127**	-.028	1		
SRAQPR	-.158**	.019	.064	.450**	-.078	-.001	.651**	1	
WHOQOL	-.300**	-.316**	-.216**	.280**	-.202**	-.212**	.281**	.260**	1

Note: SIAS = Social Interaction Anxiety Scale, BAI = Beck Anxiety Inventory, BFNE = Brief version of the Fear of Negative Evaluation Scale, SI = Social Interaction, SPIN = Social Phobia Inventory, SAS-A = Social Anxiety Scale- Adolescents, SRAQPI = Positive Individualism, SRAQPR = Positive Relatedness, WHOQOL = World Health Organisation's Quality of Life Questionnaire.

* = $p < .01$, ** = $p < .001$, $N = 555$.

8.4.1 Social interaction anxiety (SIAS)

The correlation of the SIAS and the BAI were examined to determine if social interaction anxiety appear to be related to anxiety symptoms mustering by the Beck Anxiety Inventory. Results indicates that social interaction anxiety correlated positively with the Beck Anxiety Inventory ($r = .36$, $p < .001$). Looking at subscales, a significant positive correlation was also found between social interaction anxiety and fear of negative evaluation ($r = .40$, $p < .001$). This can be deemed as convergent validity for SIAS.

Social interaction anxiety was negatively correlated with social interaction ($r = -.30$, $p < .001$), and positively correlated with the social phobia inventory scale ($r = .50$, $p < .001$. Social interaction anxiety was also positively and significantly correlated with the social anxiety scale for adolescents ($r = .54$, $p < .001$). Significant negative correlations were observed between social interaction anxiety and positive relatedness ($r = -.24$, $p < .001$) and positive individualism ($r = -.15$, $p = .001$). Reported quality of life and social interaction anxiety were negatively and significantly correlated ($r = .30$, $p < .001$). This can further provide a divergent validity for SIAS.

8.4.2 Anxiety (BAI)

Anxiety (measured by BAI) was found to correlate positively with fear of negative evaluation (r = .46, p < .001), social phobia inventory scale (r = .38, p = .001) and social anxiety scale for adolescents (r = .37, p < .001). These can be seen as convergent validity for the mentioned scales. Negative relationship was found between anxiety and quality of life (r =-.31, p < .001). No significant relationships were found, however, between anxiety and social interaction, positive relatedness and positive individualism.

8.4.3 Fear of negative evaluation (BFNE)

A significant positive correlation was found between the fear of negative evaluation and both the social phobia inventory scale (r = .59, p < .001) and social anxiety scale for adolescents (r = .51, p < .001) whereas a significantly negative correlation was found between fear of negative evaluation and quality of life (r =-.21, p < .001), as a divergent validity for BFNE**.** No significant relationships were found, however, between fear of negative evaluation and social interaction, positive relatedness and positive individualism.

8.4.4 Social interaction (SI)

Social interaction was found to correlate negatively with social phobia inventory scale (r =-.16, p < .001). Positive relationships were found between social interaction and quality of life (r =-.28, p < .001), positive relatedness (r = .45, p < .001) and with positive individualism (r = .37, p < .001). The correlation with quality of life is regarded as convergent validity for SI. No significant relationship was found, however, between social interaction and social anxiety scale for adolescents.

8.4.5 Social phobia inventory (SPIN)

Social phobia scores were positively correlated with scores on the social anxiety scale for adolescents (r = .61, p < .001). Negative relationships were found between the social phobia inventory and quality of life (r =-.20, p < .001), and with positive

individualism (r = .12, p < .01); the former can be seen as divergent validity. No significant relationship was found, however, between the social phobia inventory and positive relatedness.

8.4.6 Social anxiety scale for adolescents (SAS-A)

Social anxiety (measured by SAS-A) was negatively correlated with quality of life (r =-.21, p < .001) which can be deemed as an index for divergent validity. No significant relationship was found, however, between social anxiety scale for adolescents and either positive relatedness or positive individualism.

8.4.7 Positive individualism

A significant positive correlation was found between positive individualism and both positive relatedness (r = .65, p < .001) and quality of life (r = .28, p < .001). Finally, quality of life was positively correlated with positive relatedness(r = .26, p < .001) and positive individualism (.260, p 001).

8.5 QoL in Adolescents with and without Social Anxiety

It is hypothesised that Saudi adolescents with social anxiety as measured by SAS-A will score less on WHOQOL-BREF scale than Saudi adolescents without social anxiety.

In order to test the study hypothesises, series of *t*-tests were conducted to compare the study variables in two groups of adolescents with or without social anxiety.

Table 8.9 indicates that there are significant differences between adolescents without social anxiety and adolescents with social anxiety as measured by ASA-A on quality of life total score and its subscales psychological health, social relationships and environment. That is, adolescents without social anxiety scored higher on quality of life and its subscales than adolescents with social anxiety. No significant difference was found in psychical health.

Table 8.9: Quality of life scores as measured by the WHQOL-BREF and its subscales in two groups with and without social anxiety (SAS-A)

	Adolescents with social anxiety *N* = 152		**Adolescents without social anxiety *N* = 411**		***t* value**	***p* value**
	Mean	**Std. Deviation**	**Mean**	**Std. Deviation**		
WHOQOL total score	88.45	14.94	92.33	13.32	2.970	.003
Physical health	22.82	4.25	22.69	3.68	-.378	.706
Psychological health	19.94	4.24	21.62	3.76	4.524	.000
Social relationships	10.46	2.75	10.98	2.50	2.119	.03
Environment	27.30	6.08	28.75	5.67	2.625	.009

It is hypothesised that Saudi adolescents with social anxiety as measured by SIAS will score less on WHOQOL-BREF scale than Saudi adolescents without social anxiety.

It can be seen from table 8.10 that there are significant differences between adolescents without social anxiety and adolescents with social anxiety as measured by SIAS on quality of life total score and its subscales. That is, adolescents without social anxiety scored on quality of life and its subscales higher than adolescents with social anxiety.

Table 8.10: Quality of life scores as measured by the WHQOL-BREF and its subscales in in two groups with and without social phobia (SIAS)

	Adolescents with social phobia *N* = 145		**Adolescents without social phobia *N* = 419**		***t* value**	***p* value**
	Mean	**Std. Deviation**	**Mean**	**Std. Deviation**		
WHOQOL total score	86.63	15.08	92.89	13.04	4.782	.000
Physical health	22.04	4.42	22.96	3.58	2.501	.01
Psychological health	19.91	4.20	21.60	3.78	4.507	.000
Social relationships	10.22	2.74	11.05	2.49	3.374	.001
Environment	26.72	6.06	28.91	5.63	3.956	.000

It is hypothesised that Saudi adolescents with social anxiety as measured by SIAS will score less on SRAQ scale than Saudi adolescents without social phobia.

Table 8.11 depicts that there is a significant difference between adolescents without social anxiety and those with social anxiety as measured by SIAS on positive individualism total score. That is, adolescents without social anxiety scored higher on positive individualism than adolescents with social anxiety. No significant difference was found in positive relatedness.

Table 8.11: Positive Individualism and Positive Relatedness Adjectives mean scores as measured by the Self-Referent Adjective Questionnaire (SRAQ) in adolescents with and without social phobia (SIAS)

	Adolescents with social phobia *N* = 145		**Adolescents without social phobia *N* = 419**		***t* value**	***p* value**
	Mean	**Std. Deviation**	**Mean**	**Std. Deviation**		
Positive Individualism	52.44	14.31	57.14	15.51	3.201	.001
Positive Relatedness	58.92	13.35	61.09	14.16	1.614	.107

It is hypothesised that Saudi adolescents with social anxiety as measured by SAS-A will score less on SRAQ scale than Saudi adolescents without social anxiety.

Table 8.12 demonstrates that there is no significant difference between adolescents without social anxiety and those with social anxiety (as measured by SAS-A) on positive individualism total score and positive relatedness.

Table 8.12: Positive Individualism and Positive Relatedness Adjectives mean scores as measured by the Self-Referent Adjective Questionnaire (SRAQ) in adolescents with and without social anxiety (SAS-A)

	Adolescents with social anxiety *N* = 152		**Adolescents without social anxiety *N* = 411**		***t* value**	***p* value**
	Mean	**Std. Deviation**	**Mean**	**Std. Deviation**		
Positive Individualism	54.65	15.00	56.36	15.45	1.174	.241
Positive Relatedness	60.14	14.11	60.64	13.94	.378	.705

8.6 Sex Differences Results

It is hypothesised that boys and girls differ on social anxiety as measured by SAS-A and SPIN.

***T*-test for SAS-A and SAS-A subscales in both sex groups:**

An independent-samples *t*-test was conducted to compare the mean scores on the SAS-A scores, FNE, SAD-New and SAD-General between two sex groups. There was no significant difference on SAS-A, FNE, and SAD-New scores between boys and girls. There was a significant difference on SAD-General scores for boys (M = 9.56, SD = 3.20) and girls (M = 9.06, SD = 3.09; t (561) = 1.89, p = .05, two-tailed). (See table 8.13.)

***T*-test for SPIN and SPIN subscales in both sex groups:**

An independent-samples *t*-test was conducted to compare the SPIN scores, Fear, Avoidance and Authority Problems in two groups of boys and girls. There was a significant difference on SPIN scores for boys (M = 27.03, SD = 13.75) and girls (M = 23.82, SD = 11.45; t (562) = 3.02, p = .003, two-tailed). There was a significant difference on Fear scores for boys (M = 15.51, SD = 8.19) and girls (M = 13.81, SD = 6.72; t (562) = 2.70, p = .007, two-tailed). There was a significant difference on Avoidance scores for boys (M = 7.24, SD = 4.37) and girls (M = 5.89, SD = 3.66; t (562) = 3.99, p = .000, two-tailed). There was no significant difference on Authority Problem scores between boys (M = 4.27, SD = 3.04) and girls (M = 4.11, SD = 2.64; t (562) = .67, p = .50, two-tailed). (See table 8.14.)

Table 8.13: Means and standard deviations for the SAS-A total and subscale scores, boys and girls *t*-test

	SAS-A															
	FNE	***P***		***t***	***df***	**SAD-General**	***p***	***t***	***df***	**SAD-New**	***p***	***t***	***df***	**Total score**	***p***	***t***	***df***
	Range: 8-40					**Range:4-20**				**Range: 6-30**				**Range:18-90**			
	(mean ± *SD*)					**(mean ± *SD*)**				**(mean ± *SD*)**				**(mean ± *SD*)**			
Gender		.69		.39	561		.05	1.89	561		.51	.65	561		.33	.96	561
Boy	17.19 ± 6.91					9.56 ± 3.20				15.86 ± 4.46				42.61 ± 12.56			
Girl	16.97± 6.05					9.06 ± 3.09				15.62 ± 3.98				41.66 ± 10.77			

Table 8.14: Means and standard deviations for the SPIN total and subscale scores, boys and girls *t*-test

	SPIN															
	Fear	***p***	***t***	***df***	**Avoidance**	***p***	***t***	***df***	**Authority Problems**	***p***	***t***	***df***	**Total score**	***p***	***t***	***df***
	Range:8-40				**Range:4-45**				**Range: 4-12**				**Range:0-68**			
	(mean ± SD)				**(mean ± *SD*)**				**(mean± *SD*)**				**(mean ± *SD*)**			
Gender		.007	2.70	562		.000	3.99	562		.50	.67	562		.003	3.02	562
Boy	15.51 ± 8.19				7.24 ± 4.37				4.27 ± 3.04				27.03 ± 13.75			
Girl	13.81± 6.72				5.89 ± 3.66				4.11 ± 2.64				23.82 ± 11.45			

MANOVA results according to sex differences:

A one-way between-groups multivariate analysis of variance (MANOVA) was performed to investigate sex differences in social anxiety and quality of life. Six dependent variables were used: social interaction anxiety, anxiety, fear of negative evaluation, social interaction, social phobia inventory, social anxiety on adolescents, individualism vs. relatedness and quality of life. The independent variable was sex. There was a statistically significant difference between males and females on the combined dependent variables, F (8, 716) = 15.34, p < .001; Wilks' Lambda = .85; partial eta squared = .14.

When the results for the dependent variables were considered separately, there was a significant difference for anxiety, F (1,723) = 45.34, p < .001. An inspection of the mean scores indicated that females reported slightly higher levels of anxiety (M = 20.95, SD = 10.33) than males (M = 15.75, SD = 10.26). Moreover, there was a significant finding for Social Interaction, F (1, 723) = 8.54, p = .004. The mean scores indicated that females reported high levels of social interaction (M = 21.80, SD = 6.05) more than males (M = 20.46, SD = 6.12). In terms of individualism vs. relatedness, there was a significant result, F = (1.723) = 6.51, p = .01. The mean score indicated that females reported higher levels of individualism vs. relatedness (M = 118.65, SD = 12.22) than males (88.59, SD = 15.41). Finally, difference on Quality of Life was statistically significant, F = (1. 723) = 15.26, p < .001.

MANOVA results according to sample differences:

A one-way between-groups multivariate analysis of variance (MANOVA) was performed to investigate sample differences in all the study variable. Six dependent variables were used: social interaction anxiety, anxiety, fear of negative evaluation, social interaction, social phobia inventory, social anxiety, individualism vs. relatedness and quality of life. The independent variable was participant group. There was a statistically significant difference between community and clinical samples on the combined dependent variables, F (8,716) = 16.25, p < .001; Wilks' Lambda = .84; partial eta squared = .15.

When the results for the dependent variables were considered separately, there was a significant result for social interaction anxiety; F (1,723) = 67.12, p = .000. The mean scores indicate that the clinical sample reported slightly higher levels of social interaction anxiety (M = 33.53, SD = 9.85) than the community sample (M = 26.19, SD = 10.32). Moreover, there was a significant finding for the variable of anxiety, F (1,723) = 52.08, p = .000. The mean scores indicate that the clinical sample reported higher levels of anxiety (M = 23.65, SD = 10.46) than the community sample (M = 17.16, SD = 10.13).

Statistical significant difference of Fear of negative evaluation was found, F (1,723) = 60.20, p = .000. The mean scores indicated that the clinical sample scored higher on Fear of negative evaluation (M = 32.87, SD = 8.31) than the community sample (M = 27.13, SD = 8.46). In terms of, social phobia inventory, a statistical significant difference was also found, F (1,723) = 70.43, p = .000. The mean scores indicated that the clinical sample reported higher levels of Social phobia inventory (M = 34.18, SD = 10.81) than the community sample (M = 25.20, SD = 12.60). Meanwhile, social anxiety for adolescents was found to have a statistical significant difference, F = (1.723) = 101.27, p = .000. The mean score indicated that the clinical sample scored higher on social anxiety for adolescents (M = 51.79, SD = 9.41) than the community sample (M = 41.94, SD = 11.65).

It is hypothesised that there is statistical differences on social interaction anxiety, anxiety, social interaction, fear of negative evaluation, self-referent adjective and quality of life between boys and girls.

Table 8.15: Results from the independent sample *t*-test for differences between male and female adolescents on SIAS, BAI, BFNE, SI, SRAQPI, SRAQPR and WHOQOL

	Male vs. Female	*N*	Mean	Std. Deviation	*t* value	*p* value
SIAS	Male	264	26.45	10.54	.569	.57
	Female	291	25.95	10.14		
BAI	Male	264	14.73	9.82	-5.530	.000
	Female	291	19.37	9.92		
BFNE	Male	264	26.80	9.40	-.885	.377
	Female	291	27.43	7.51		
SI	Male	264	20.46	6.08	-3.193	.001
	Female	291	22.10	6.01		
SRAQPI	Male	264	55.42	16.93	-.766	.44
	Female	291	56.41	13.70		
SRAQPR	Male	264	58.27	15.93	-3.772	.000
	Female	291	62.66	11.47		
WHOQOL	Male	264	88.79	15.20	-4.221	.000
	Female	291	93.68	12.05		

Note: SIAS = Social Interaction Anxiety Scale, BAI = Beck Anxiety Inventory, BFNE = Brief version of the Fear of Negative Evaluation Scale, SI = Social Interaction, SRAQPI = Positive Individualism, SRAQPR = Positive Relatedness, WHOQOL = World Health Organisation's Quality of Life Questionnaire.

Differences between male and female adolescents on SIAS, BAI, BFNE, SI, SRAQPI, SRAQPR and WHOQOL:

Results on the above mentioned scales showed that there was no significant difference on SIAS, BFNE, SRAQ (positive individualism) scores for boys. Whereas, there was a significant difference on BAI scores for boys and girls (t (553) = -5.530, p = .000, two-tailed). Results also reflected a significant difference on SI scores for boys (t (553) = -3.193, p = .001, two-tailed). On the contrary, results showed no significant difference in Concerning differences between boys and girls in SRAQ, results indicated a significant difference in SRAQ (positive relatedness) scores for boys and girls (t (553) = -3.772, p = .000, two-tailed). In the meantime, there was a significant difference on

WHOQOL scores for boys and girls (t (553) = -4.221, p = .000, two-tailed). (See table 8.15.)

8.6.1 Question 2: What are the differences in social anxiety related to select to demographic and personal characteristics among school students (adolescents) in Saudi Arabia?

Age differences

Participants were divided into three groups according to their age (Group 1: 12-14 years; Group 2: 15-17 years; Group 3: 18-19 years). A one-way ANOVA was conducted to explore the impact of age levels on social anxiety, as measured by social anxiety for adolescents (SAS-A). There was a statistically significant difference at the $p < .05$ level on SAS-A scores for the three age groups: F (2.531) = 3.295, p = .03. Despite reaching statistical significance, the actual difference on mean scores between the groups was quite small. The effect size, calculated using eta squared, was 0.01. Post-hoc comparison using the Tukey HSD test indicated that the mean score for Group 2 (M = 42.64, SD = 11.90) was significantly different from Group 3 (M = 39.77, SD = 10.01), (p = .032). Group 1 (M = 43.11, SD = 16.79) did not differ significantly from either Group 2 or 3.

In terms of the SAS-A subscale, there was a statistically significant difference at the $p < .05$ level on FNE scores for three age groups: F (2,560) = 4.125, p = .01. Post-hoc comparison using the Tukey HSD test indicated that the mean score for Group 2 (M = 17.57, SD = 6.68) was significantly different from Group 3 (M = 15.82, SD = 5.40), (p = .012). Group 1 (M = 17.30.11, SD = 8.92) did not differ significantly from either Group 2 or 3. There was no statistically significant difference at the $p < .05$ level on SAD-General scores for three age groups: F (2,560) = .697, p = .49. There was no statistically significant difference at the $p < .05$ level in SAD-New scores for three age groups: F (2,560) = .800, p = .45. On the one-way ANOVA no statistically significant difference was found at the $p < .05$ level on SIAS scores for the three age groups: F (2.531) = .465, p = .62.

Furthermore, the one-way ANOVA findings revealed that there was a statistically significant difference at the $p < .05$ level in SAS-A scores for the three age groups: F (2.531) = 6.138, $p = .002$. Despite reaching statistical significance, the actual difference on mean scores between the groups was quite small. The effect size, calculated using eta squared, was 0.02. Post-hoc comparison using the Tukey HSD test indicated that the mean score for Group 1 ($M = 10.77$, $SD = 7.65$) was significantly different from Group 2 ($M = 18.01$, $SD = 10.01$), ($p = .008$). Group 3 ($M = 25.51$, $SD = 8.81$) did not differ significantly from either Group 1 or 2.

Findings also showed that there was a statistically significant difference at the $p < .05$ level on SAS-A scores for the three age groups: F (2.531) = 3.897, $p = .021$. Despite reaching statistical significance, the actual difference on mean scores between the groups was quite small. The effect size, calculated using eta squared, was 0.01. Post-hoc comparison using the Tukey HSD test indicated that the mean score for Group 2 ($M = 27.73$, $SD = 8.13$) was significantly different from Group 3 ($M = 25.51$, $SD = 8.81$), ($p = .019$). Group 1 ($M = 25.83$, $SD = 9.38$) did not differ significantly from either Group 2 or 3.

There was no statistically significant difference at the $p < .05$ level in SI scores for the three age groups: F (2.531) = .111, $p = .89$. There was no statistically significant difference at the $p < .05$ level on SPIN and SI scores for the three age groups. The one-way ANOVA showed no significant results for Self-Referent Adjective, as measured by Self-Referent Adjective (SRAQ): F (2.531) = 1.209, $p = .29$ and quality of life, as measured by the World Health Organization's quality of life (WHOQOL): F (2.531) = 1.012, $p = .36$.

8.7 Family Income

A one-way ANOVA analysis of variance was conducted to explore the impact of family income levels on the research variables. Participants were divided into four groups according to their family income (Group 1, $n = 169$: 5,000-10,000 SR, Group 2, $n = 139$: 10,000-15,000 SR, Group 3 $n = 135$: 15,000-20,000 SR, Group 4, $n = 87$: More than 20,000 SR). There was a statistically significant difference at the $p < .05$ level on

SAS-A scores for the four family income groups: F (3.526) = 6.680, p = .000. Despite reaching statistical significance, the actual difference in mean scores between the groups was quite small. Post-hoc comparison using the Tukey HSD test indicated that the mean score for Group 1 (M = 42.67, SD = 11.39) was significantly different from Group 3 (M = 39.00, SD = 10.66), (p = .03). Group 2 (M = 44.80, SD = 12.75) was significantly different from Group 3 (M = 39.00, SD = 10.66), and Group 4 (M = 40.22, SD = 10.77). Group 3 was significantly different from Group 1 (M = 39.00, SD = 10.66) and Group 2 (M = 44.80, SD = 12.75). Group 4 was significantly different from Group 2 only.

There was also a statistically significant difference at the $p < .05$ level on SIAS scores for the four family income groups: F (3.526) = 5.038, p = .002. Post-hoc comparison using the Tukey HSD test indicated that the mean score for Group 2 (M = 28.69, SD = 11.21) was significantly different from Group 3 (M = 24.55, SD = 10.06) and group 4 (M = 24.24, SD = 10.41). Group 4 (M = 24.24, SD = 10.41) was significantly different from Group 2 (M = 28.69, SD = 11.21).

There was no statistically significant difference at the $p < .05$ level on BAI (F (2.531) = 1.0217, p = .38) and SAS-A scores for the four family income groups (F (2.531) = .788, p = .50).

Moreover, the results showed SI (F (3.526) = 2.671, p = .04) and QoL scores for the four family income groups (F (3.526) = 2.946, p = .03). However, the actual difference in mean scores between the groups was small. In terms of SIAS, post-hoc comparison using the Tukey HSD test indicated that the mean score for only Group 1 (M = 20.55, SD = 5.76) was significantly different from Group 3 (M = 22.36, SD = 6.18); for SI, the mean score for only Group 2(M = 27.07, SD = 13.43) was significantly different from Group 3 (M = 23.22, SD = 12.01); for WHOQOL, the mean score for only Group 1 (M = 89.57, SD = 13.03) was significantly different from Group 2 (M = 93.71, SD = 12.14). There was no statistically significant difference at the $p < .05$ level on Self-Referent Adjectives (F (3.526) = 2.293, p = .07) and on BAI (F (2.531) = 1.0217, p = .38) scores for the four family income groups.

8.8 Family Size

Participants were divided into three groups according to their family size (Group 1, *n* = 75: 3-5 siblings, Group 2, *n* = 378: 5-10 siblings, Group 3 *n* = 135: more than 10). There was a statistically significant difference at the $p < .05$ level in SAS-A scores for the family four family number groups: F (2.531) = .154, $p = .85$. There was statistically significant difference at the $p < .05$ level in SIAS scores for the four family number groups: F (2.531) = 1.589, $p = .20$. There was no statistically significant difference at the $p < .05$ level in BAI scores for the four family number groups: F (2.531) = 1.184, $p = .30$. There was no statistically significant difference at the $p < .05$ level in BFNE scores for the four family number groups: F (2.531) = 2.390, $p = .09$. There was statistically significant difference at the $p < .05$ level in SIAS scores for the four family number groups: F (3.531) = .558, $p = .57$. There was a statistically significant difference at the $p < .05$ level in SPIN scores for the four family number groups: F (2.531) = 2.236, $p = .10$. There was no statistically significant difference at the $p < .05$ level in Self-Referent Adjective scores for the four family income groups: F (2.531) = 2.186, $p = .11$.

Participants were divided into four groups according to their family number (Group 1, *n* = 75: 3-5 siblings, Group 2, *n* = 378: 5-10 siblings, Group 3 *n* = 135: more than 10). There was a statistically significant difference at the $p < .05$ level in QoL scores for the three family number groups: F (2.531) = 3.732, $p = .02$. Despite reaching statistical significance, the actual difference in mean scores between the groups was quite small. Post-hoc comparison using the Tukey HSD test indicated that the mean score for only Group 1 (M = 94.64, SD = 13.52) which was significantly different from Group 3 (M = 88.96, SD = 12.40).

8.9 Study 2: Clinical Sample

Differences between community and clinical samples on SIAS, BAI, BFNE, SI, SPIN, SAS-A, SRAQPI, SRAQPR and WHOQOL:

It is hypothesised that there is statistical difference on social interaction anxiety, anxiety, social interaction, fear of negative evaluation, social phobia inventory,

social anxiety, self-referent adjective and quality of life between community and clinical samples.

The overall response from clinical sample was 170 out of 200 questionnaires giving a response rate of 85%. Table 8.16 summarises the demographic characteristics of the clinical sample. The results show that 118 (69.4%) of respondents are girls and 52 (30.6%) of respondents are boys. Most of the samples are in high school, 152 (89.4%). Most of the respondents were 17 years old and over.

Table 8.16: Demographic characteristics of clinical participants

Demographics	Frequency	Percentage
Sex		
Boys	52	30.6%
Girls	118	69.4%
Age		
13	3	1.8%
14	3	1.8%
15	8	4.7%
16	37	21.8%
17	79	46.5%
18	40	23.5%
Education Level		
Secondary School	18	10.6%
High School	152	89.4%
Family number		
Between 3-5	22	12.9%
Between 5-10	123	72.4%
More than 10	25	14.7%
Father education		
Primary level	21	12.4%
Secondary level	29	17.1%
High school level	61	35.9%
Higher education	50	29.4%
Postgraduate level	9	5.3%
Mother education		
Primary level	33	19.4%
Secondary level	42	24.7%
High school level	52	30.6%
Higher education	40	23.5%
Postgraduate level	3	1.8%
Family income		
5,000-10,000 SR	34	20.0%
10,000-15,000 SR	81	47.6%
15,000-20,000 SR	36	21.2%
More than 20,000 SR	19	11.2%
Accommodation		
Owning Housing	92	54.1%
Rent Housing	78	45.9%

An independent-samples *t*-test was conducted to compare the study variables between community and clinical sample. In this respect, the results showed a significant difference on SIAS scores between community (M = 26.19, SD = 10.32) and clinical (M = 33.53, SD = 9.85; t (723) = -8.193, p = .000, two-tailed) samples. Concerning the BAI

scale, the results also showed a significant difference between the community (*M* = 17.16, *SD* = 10.13) and clinical (*M* = 23.65, *SD* = 10.64; *t* (723) = -7.217, *p* = .000, two-tailed) samples. Moreover, adolescents' scores for the scale of BFEN appeared to have a significant difference between community (*M* = 27.13, *SD* = 8.46) and clinical (*M* = 32.87, *SD* = 8.31; *t* (723) = -7.759, *p* = .000, two-tailed). On the contrary, no significant difference was found on SI scores for the community (*M* = 21.32, *SD* = 6.09) and clinical (*M* = 20.88, *SD* = 6.20; *t* (723) = .809, *p* = .41, two-tailed) samples. For SPIN and SAS-A scales, statistical results indicated that the community sample differs significantly on SPIN (community: *M* = 25.20, *SD* = 12.60; clinical: *M* = 34.18, *SD* = 10.81; *t* (723) -8.393, *p* = .000, two-tailed) and on SAS-A (community: *M* = 41.94, *SD* = 11.65; clinical: *M* = 51.79, *SD* = 9.41; *t* (723) = -10.063, *p* = .000, two-tailed).

No significant difference was found on SARAQPI (community: *M* = 55.93, *SD* = 15.34; clinical: *M* = 55.88, *SD* = 13.77; *t* (723) = .037, *p* = .97, two-tailed) and on SARAQPR (community: *M* = 60.53, *SD* = 13.97; clinical: *M* = 61.88 *SD* = 12.53; *t* (723) = -1.130, *p* = .25, two-tailed). Also no significant difference was found on WHOQOL scores between community (*M* = 91.35, *SD* = 13.85) and clinical (*M* = 89.23, *SD* = 13.71; *t* (723) = .17, *p* = .86, two-tailed) samples. (See table 8.17.)

Table 8.17: Results from the independent sample *t*-test for differences between community and clinical samples in SIAS, BAI, BFNE, SI, SPIN, SAS-A, SRAQPI, SRAQPR and WHOQOL

	Normal vs. Clinical	N	Mean	Std. Deviation	*t* value	*p* value
SIAS	community	555	26.19	10.32	-8.193	.000
	clinical	170	33.53	9.85		
BAI	community	555	17.16	10.13	-7.217	.000
	clinical	170	23.65	10.64		
BFNE	community	555	27.13	8.46	-7.759	.000
	clinical	170	32.87	8.31		
SI	community	555	21.32	6.09	.809	.41
	clinical	170	20.88	6.20		
SPIN	community	555	25.20	12.60	-8.393	.000
	clinical	170	34.18	10.81		
SAS-A	community	555	41.94	11.65	-10.063	.000
	clinical	170	51.79	9.41		
SARAQPI	community	555	55.93	15.34	.037	.97
	clinical	170	55.88	13.77		
SRAQPR	community	555	60.53	13.97	-1.130	.25
	clinical	170	61.88	12.53		
WHOQOL	community	555	91.35	13.85	1.753	.08
	clinical	170	89.23	13.71		

Note: SIAS = Social Interaction Anxiety Scale, BAI = Beck Anxiety Inventory, BFNE = Brief version of the Fear of Negative Evaluation Scale, SI = Social Interaction, SPIN = Social Phobia Inventory, SAS-A = Social Anxiety Scale-Adolescents, SRAQPI = Positive Individualism, SRAQPR = Positive Relatedness, WHOQOL = World Health Organisation's Quality of Life Questionnaire.

8.10 Study 3: Cross-cultural Comparison: Saudi and British Samples

It is hypothesised that there is statistically difference on social interaction anxiety, anxiety, social interaction, fear of negative evaluation, social phobia inventory, social anxiety, self-referent adjectives and quality of life between Saudi adolescents and British adolescents sample.

Demographic characteristics of the respondents

The overall response of British participants was 64 out of 100 questionnaires giving a response rate of 56%. Table 8.18 summarises the demographic characteristics of the sample. The results show that more than half of respondents 34 (53.9%) are girls

and 30 (46.9%) of respondents are boys. The majority of the respondents 30 (46.9%) are aged 16 years. Seventeen years old is the next highest age category of the respondents 23 (35.9%). In order to have an equal sample with British participants group, the researcher selected a comparable number of Saudi adolescents from the age range 16-18 years with the same sex balance. In the Saudi sample in this case there were 100 participants.

Table 8.18: Demographic characteristics of British participants

Demographics		Frequency	Percentage
Sex			
Saudi			
	Boys	47	47.0%
	Girls	53	53.0%
British			
	Boys	30	46.9
	Girls	34	53.9
Age			
Saudi			
	16	20	20.0%
	17	40	20.0%
	18	40	40.0%
British			
	16	30	46.9%
	17	23	35.9%
	18	11	17.2%
Education Level			
Saudi			
	High School	100	100%
British			
	Sixth Form College	64	100%

Differences between Saudi adolescents and British adolescents on SIAS, BAI, BFNE, SI, SPIN, SAS-A, SRAQPI, SRAQPR and WHOQOL:

A series of independent-sample *t*-tests was conducted to compare the study variables between high school Saudi adolescents and British adolescents. No significant difference was found on SIAS scores for Saudi adolescents and British adolescents. Whereas, a marginally significant differences was found on BAI scores between Saudi adolescents (M = 17.31, SD = 9.40) and British adolescents (M = 14.35, SD = 11.11; t (162) = 1.824, p = .07, two-tailed), meaning the Saudi sample reported a higher level of anxiety. Concerning the BFNE scale, there was a significant difference on BFNE scores

for Saudi adolescents (*M* = 25.74, *SD* = 8.47) than the British adolescents (*M* = 29.60, *SD* = 7.50; *t* (161) = -2.969, *p* = .03, two-tailed). Concerning the SI scale, there was no significant difference for Saudi adolescents (*M* = 20.76, *SD* = 5.76) and British adolescents (*M* = 19.15, *SD* = 5.92; *t* (161) = 1.725, *p* = .08, two-tailed). Statistical analysis of the SPIN scale indicated a significant difference on SPIN scores between Saudi adolescents (*M* = 24.39, *SD* = 11.42) and British adolescents (*M* = 18.31, *SD* = 10.52; *t* (162) 3.426, *p* = .001, two-tailed), whereas no significant difference on SAS-A, SARAQPI, SARAQPR and WHOQOL was found between two groups. (See table 8.19.)

Table 8.19: Results from the independent sample *t*-test for differences between Saudi adolescents and British adolescents in SIAS, BAI, BFNE, SI, SRAQPI, SRAQPR and WHOQOL.

	Saudi vs. British	***N***	**Mean**	**Std. Deviation**	***t* value**	***p* value**
SIAS	Saudi	100	24.68	10.07	-1.106	.27
	British	64	26.57	11.67		
BAI	Saudi	100	17.31	9.40	1.824	.07
	British	64	14.35	11.11		
BFNE	Saudi	99	25.74	8.47	-2.969	.003
	British	64	29.60	7.50		
SI	Saudi	99	20.76	5.76	1.725	.08
	British	64	19.15	5.92		
SPIN	Saudi	100	24.39	11.42	3.426	.001
	British	64	18.31	10.52		
SAS-A	Saudi	99	41.97	11.68	-1.160	.24
	British	64	44.35	14.35		
SARAQPI	Saudi	100	54.27	14.54	-.592	.55
	British	64	55.68	15.58		
SRAQPR	Saudi	100	60.53	13.40	.307	.75
	British	64	59.87	13.16		
WHOQOL	Saudi	100	91.57	14.44	1.527	.12
	British	64	88.25	12.10		

Note: SIAS = Social Interaction Anxiety Scale, BAI = Beck Anxiety Inventory, BFNE = Brief version of the Fear of Negative Evaluation Scale, SI = Social Interaction, SPIN = Social Phobia Inventory, SAS-A = Social Anxiety Scale-Adolescents, SRAQPI = Positive Individualism, SRAQPR = Positive Relatedness, WHOQOL = World Health Organisation's Quality of Life Questionnaire.

According to table 8.20, the statistical findings showed no significant difference on WHOQOL (total score) between Saudi adolescents and British adolescents. However, in relation to WHOQOL subscales, the results reflected a significant difference on Physical health scores between Saudi adolescents (*M* = 22.60, *SD* = 4.10) and British

adolescents (*M* = 21.23, *SD* = 3.50; *t* (162) = 2.197, *p* = .02, two-tailed) and a significant difference in Psychological health scores between Saudi adolescents (*M* = 21.35, *SD* = 4.01) and British adolescents (*M* = 19.07, *SD* = 3.33; *t* (162) = 3.765, *p* < .001, two-tailed). A significant difference was found on Social relationships scores between Saudi adolescents (*M* = 11.07, *SD* = 2.38) and British adolescents (*M* = 8.92, *SD* = 2.88; *t* (162) = 5.175, *p* = .000, two-tailed). Finally, results indicated a significant difference on Environmental health scores for Saudi adolescents (*M* = 28.29, *SD* = 5.91) and British adolescents (*M* = 31.17, *SD* = 5.05; *t* (162) = -3.218, *p* = .002, two-tailed).

Table 8.20: Results from the independent sample *t*-test for differences between Saudi and British adolescents on WHOQOL and its subscales.

	Saudi vs. British	***N***	**Mean**	**Std. Deviation**	***t* value**	***p* value**
WHOQOL	Saudi	100	91.57	14.44	1.527	.12
	British	64	88.25	12.10		
Physical health	Saudi	100	22.60	4.10	2.197	.02
	British	64	21.23	3.50		
Psychological health	Saudi	99	21.35	4.01	3.765	.000
	British	64	19.07	3.33		
Social relationships	Saudi	99	11.07	2.38	5.175	.000
	British	64	8.92	2.88		
Environmental health	Saudi	100	28.29	5.91	-3.218	.002
	British	64	31.17	5.05		

In relation to BAI subscales, significant differences were found on subjective (*t* (162) = 2.269, *p* = .02, two-tailed), Autonomic (*t* (162) = 2.335, *p* = .02) subscales between Saudi adolescents and British adolescents, showing that the Saudi sample reported a higher level of subjective anxiety. No significant differences were found in the results of the Saudi adolescents (*M* = 3.94, *SD* = 3.88) compared to the British adolescents (*M* = 3.82, *SD* = 4.31; *t* (162) = .172, *p* = .86, two-tailed). Moreover, a significant difference was found on Panic-related and Neurophysiologic subscales between two groups. (See Table 8.21)

Table 8.21: Results from the independent sample *t*-test for differences between Saudi adolescents and British adolescents on BAI and its subscales

	Saudi vs. British	*N*	Mean	Std. Deviation	*t* value	*p* value
BAI	Saudi	100	17.31	9.40	1.824	.07
	British	64	14.35	11.11		
Subjective	Saudi	100	7.44	3.78	2.269	.02
	British	64	5.96	4.43		
Neurophysiologic	Saudi	100	3.94	3.88	.172	.86
	British	64	3.82	4.31		
Autonomic	Saudi	100	3.77	2.53	2.335	.02
	British	64	2.85	2.26		
Panic-related	Saudi	100	2.16	2.09	1.460	.14
	British	64	1.70	1.70		

Table 8.22: Results from the independent sample *t*-test for differences between Saudi adolescents and British adolescents on SPIN and its subscales

	Saudi vs. British	*N*	Mean	Std. Deviation	*t* value	*p* value
SPIN	Saudi	100	24.39	11.42	3.426	.001
	British	64	18.31	10.52		
Fear	Saudi	100	14.00	7.06	2.621	.01
	British	64	11.10	6.59		
Avoidance	Saudi	100	6.66	3.63	5.186	.000
	British	64	3.81	3.08		
Authority Problems	Saudi	100	3.73	2.54	.862	.39
	British	64	3.39	2.32		

Table 8.22 reveals that there are significant differences on Fear and Avoidance subscales between the two groups. No significant difference on the Authority Problems subscale was found between Saudi adolescents and British adolescents.

Table 8.23: Results from the independent sample *t*-test for differences between Saudi adolescents and British adolescents in SAS-A and its subscales.

	Saudi vs. British	N	Mean	Std. Deviation	*t* value	*p* value
SAS-A total score	Saudi	99	41.97	11.68	-1.160	.24
	British	64	44.35	14.35		
SAD-New	Saudi	99	16.60	4.17	.368	.71
	British	64	15.34	4.81		
FNE	Saudi	99	16.80	6.35	-3.566	.000
	British	64	20.73	7.59		
SAD-General	Saudi	99	9.56	3.14	2.351	.02
	British	64	8.28	3.77		

Results in table 8.23 indicates no significant difference on SAD-New scores for Saudi adolescents and British adolescents, whereas a significant difference was found on FNE and SAD-General subscales between Saudi adolescents and British adolescents.

Differences on Social Anxiety between Saudi, British, the USA, Chinese, Spanish and Turkish Adolescents

In order to conduct a comparative analysis of social anxiety between the Saudi Arabian and British samples, further countries (China, Spain, the USA and Turkey) were compared in terms of scores on the SAS-A scale. The remaining study analyses pertained to differences on levels of social anxiety between adolescents from Saudi Arabia, the United Kingdom, the USA, China, Spain and Turkey. Means and standard deviations for the SAS-A total and subscales obtained from adolescents in this study were compared to those reported by La Greca (1999) in the USA, and Zhou et al. (2008) in China, Olivares et al. (2005) in Spain and Memik et al. (2010) in Turkey. (See table 8.24.)

Even though no inferential statistics were conducted between those countries based on the available research conducted in these countries, the results expected that: (a) Saudi adolescents scored less than Chinese adolescents on the FNE, SAD-New, and SAD-General subscales and on the SAS-A total; (b) Saudi adolescents scored significantly higher than British adolescents on the FNE, SAD-New, SAD-General subscales, and on the SAS-A total; (c) Saudi adolescents scored less than Chinese adolescents on the FNE, SAD-New, and SAD-General subscales and on the SAS-A

total; (d) Saudi adolescents scored less than Chinese adolescents on the FNE, SAD-New, and SAD-General subscales and on the SAS-A total; (e) Saudi adolescents scored less than Chinese adolescents on the FNE, SAD-New, and SAD-General subscales and on the SAS-A total; (f) Saudi adolescents scored less than Spanish adolescents on the FNE and on the SAS-A total but were higher on SAD-New and (g) Saudi adolescents scored less than Turkish adolescents on the FNE subscale and on the SAS-A total but were higher on SAD-New and SAD-General.

Table 8.24: Means and standard deviations for the SAS-A total score and subscale scores in Saudi Arabia, the United Kingdom, the USA, China, Spain and Turkey.

	Study Groups		**Comparative data**			
	Saudi (*N* 563)	**British (*N* 64)**	**American (*N* 259)**	**Chinese (*N* 296)**	**Spanish (*N* 2,407)**	**Turkish (*N* 1,713)**
Age (mean ± SD)	16.79 ± 1.13	16.70 ± 0.74	17.04 ± 0.91	15.52 ± 1.70	15.08 ± 0.88	12.59 ± 0.93
SAS-A						
FNE	17.07 ± 6.48	20.73 ± 7.59	16.81 ± 6.4	22.73 ± 5.9	20.44 ± 6.93	19.88 ± 7.15
Rank: 8-40 (mean± SD)						
SAD-General	9.30 ± 3.15	8.28 ± 3.77	6.91 ± 2.08	9.91 ± 2.5	7.86 ± 3.07	8.12 ± 3.60
Rank: 4-20 (mean± SD)						
SAD-New	15.74 ± 4.21	15.34 ± 4.81	15.37 ± 4.7	16.84 ± 4.1	14.87 ± 4.77	16.21 ± 5.01
Rank: 6-30 (mean± SD)						
Total score	42.12 ± 11.67	44.35 ± 14.35	39.09 ± 12.0	49.47 ± 9.5	43.17 ± 12.95	44.22 ± 13.33
Rank: 18-90 (mean± SD)						

8.11 Summary

It can be concluded that Saudi adolescents suffer from social anxiety (social phobia) at a mild to moderate level, and about one third of the adolescents showed positive symptoms of social phobia (score > 34). On the other hand, fear in social situations found to be the high concern and reported among adolescents compared to avoidance and Authority Problems subscales. In the study comparing the community sample with the clinical one, the results indicated that significant difference on SIAS scores between community and clinical samples was found to be high in the clinical one. Concerning anxiety, the results also showed that the clinical sample scored more than the community one. In a cross-cultural study, the results found out that no significant difference was found on SIAS scores for Saudi adolescents and British adolescents. Whereas, a marginally significant differences was found on BAI scores which Saudi adolescents reported a higher level of anxiety than British adolescents. Whereas the

British sample reported a higher level than the Saudi one on fear of negative evaluation. The next chapter presents and adopts the confirmatory factor analysis to validate the measurement model.

CHAPTER NINE

9 STRUCTURAL EQUATION MODELLING RESULTS

9.1 Introduction to Structural Equation Modelling

Structural Equation Modelling (SEM) was considered appropriate for this study as it serves purposes similar to multiple regressions, but in a more powerful way which takes into account the modelling of interactions, multicollinearity, measurement error, correlated error terms, and multiple latent independent and dependent factors (Fornell & Larcker, 1981; Anderson & Gerbing, 1988; Hoyle, 1995; Hair et al., 1995; Arbuckle, 2006). According to Anderson and Gerbing (1988), the SEM process centres around two steps: validating the measurement model and fitting the structural model. The former is accomplished primarily through confirmatory factor analysis (CFA), while the latter is accomplished primarily through path analysis with latent variables. Arbuckle (2006) contends that CFA is used to confirm that the indicators sort themselves into factors corresponding to how the researcher has linked the indicators to the latent variables. CFA models in SEM are used to assess the role of measurement error in the model. Kline (1998) recommends that researchers always test the pure measurement model underlying a full structural equation model first, and if the fit of the measurement model is found acceptable, then to proceed to the second step of testing the structural model by comparing its fit with that of different structural models. According to Arbuckle (2006), goodness-of-fit tests determine if the model being tested should be accepted or rejected. Jaccard and Wan (1996) and Kline (1998) agree that one should report not only goodness-of-fit measures but also should report the structural coefficients so that the strength of paths in the model can be assessed. A sample size of 734 respondents was used for this analysis. After reviewing the relevant literature, the researcher deemed it important to report the following measure-of-fit indices: Chi-square (CMIN), Relative Chi-square (CMIN/DF), Tucker-Lewis Index (TLI), Root Mean Square Error of Approximation (RMSEA), Comparative Fit Index (CFI) and Normed Fit Index (NFI).

9.2 Confirmatory Factor Analysis

According to Brown (2006), the researcher must specify in advance several key aspects of the factor model such as the number of factors and patterns of indicator-factor loadings. The proposed model was built based on prior research and theoretical findings, thus this researcher had a reasonably good idea about the observed variables that are likely to be the reliable indicators of a particular factor. The present study adopted confirmatory factor analysis to validate the measurement model. The factor loadings are the correlation coefficients between the variables and factors. The squared factor loading is the percentage variance in that indicator variable explained by the factor. Hair et al. (2010) and Arbuckle (2011) recommend that the loadings should be 0.4 or higher. The indicator variables were selected on the basis of prior theory and common factor analysis was used to determine if the number of factors and the loadings of measured (indicator) variables on them conform to pre-established theory (see figure 9.1).

This provided a more detailed insight into the measurement model than the single-coefficient goodness-of-fit measures used in the SEM approach. Some of the indicators had factor loadings and communality below 0.40 thus were removed from the analysis. The initial exploratory factor analysis (EFA) using Varimax rotation revealed that the indicators sorted themselves into several factors. SIAS sorted itself into 4 factors; BNFE SAS-ASADN and QOLPH sorted themselves into 2 factors each; SRAQPI sorted itself into 6 factors; and SRAQPR sorted itself into 5 factors. Based on Garson's (2009) recommendations using scree plot and Kaiser Criterion, some factors were dropped as they did not contribute much to explained variance. After common factor analysis, a model with fewer variables explaining most variance in the six factors was specified.

The initial Confirmatory Factor Analysis (CFA) was conducted empirically to investigate the suitability of extracted factors for unidimensionality, convergent validity and discriminant validity (see Appendix 5).After running the CFA for individual items, all the items were run as a single model. The overall fit of the model was not acceptable ($\chi 2$ = 6410.89, df = 2417, p <0.01) with relative chi square ($\chi 2/df$ ratio) of 2.65, CFI of .803, NFI of .72, TLI of .77 and RMSEA of 15. All the above measures of model fit

indicated that the measurement model was not a good fit for the data, hence it needed to be trimmed further by dropping weak indicators, as suggested by Garson (2009). After trimming the model (see figure 9.1), the overall fit indices were acceptable, with χ^2 of 753 (df = 356, p =0.00), relative chi square (χ^2/df ratio) of 2.1, CFI of .94 NFI of .90, TLI of .93 and RMSEA of .041. The overall model fit appears quite good. The Standardized Regression Weights were significant which can be interpreted as the correlation between the observed variable and the corresponding common factor.

9.2.1 Unidimensionality Analysis

Individual items in the model were examined to see how closely they represent the same construct (Ahire et al., 1996). A comparative fit index (CFI) of 0.90 or above for the model implies that there is a strong evidence of unidimensionality, as recommended by Hair et al. (1995). In relation to this study, the CFI indices for all the latent variables (after dropping some items) were above the 0.90 level, which indicated evidence of unidimensionality.

9.2.2 Reliability Analysis

Reliability of a measure is the ability to yield consistent results (Nunnally, 1994). Internal consistency was estimated using a composite reliability coefficient. An alpha value of 0.60 to 0.70 or above was considered to be the criterion for demonstrating internal consistency of new scales and established scales respectively. Squared multiple correlations (R2) for each measurement item, composite reliability (communality), above 0.60 indicating good construct reliability. This implies that the observed indicators were reliable and consistent measures of latent dimensions.

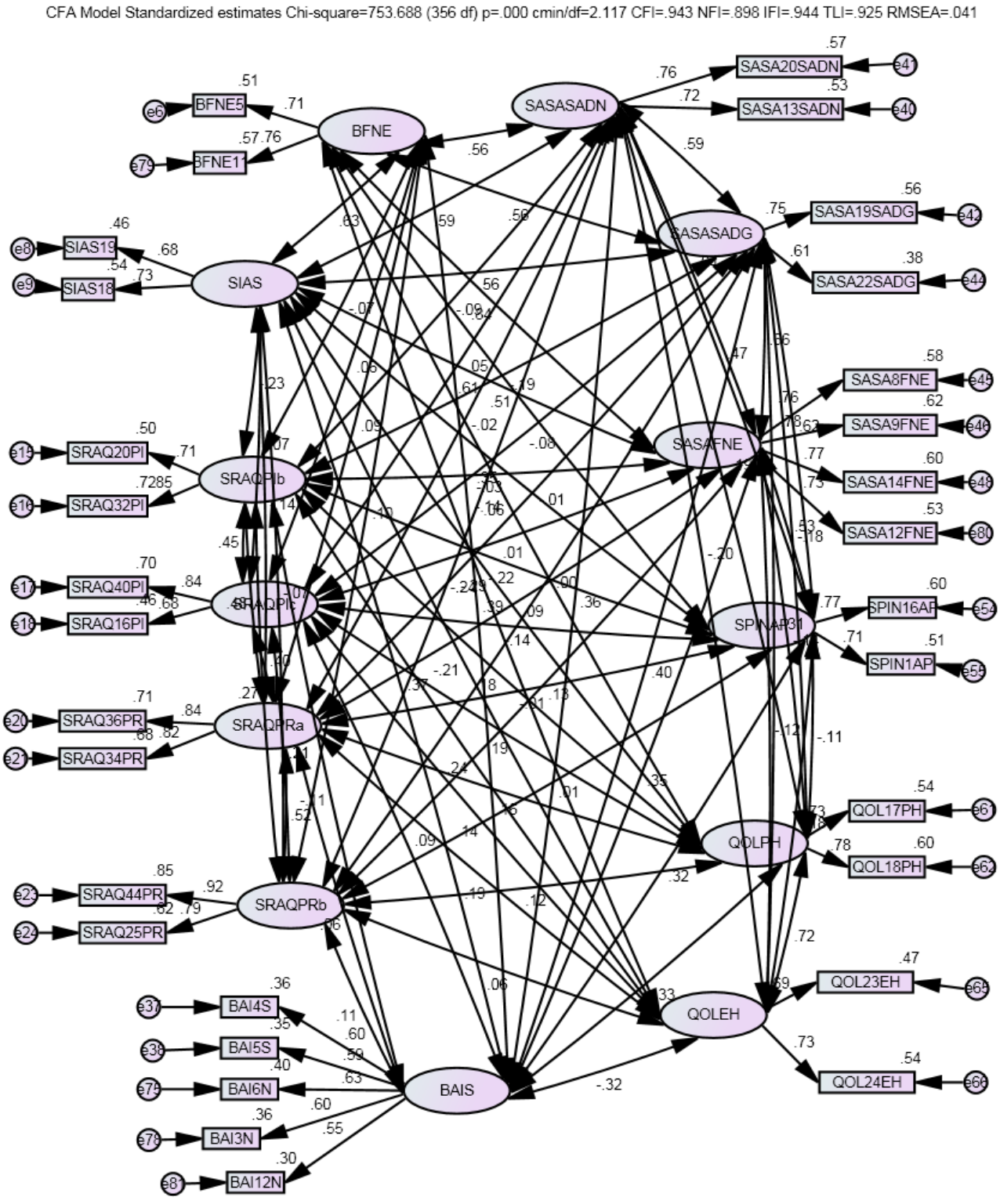


Figure 9.1: Confirmatory Factor Analysis

9.2.3 Validity Analysis

Construct validity was established using two objective forms of validity namely convergent and discriminant, readily available in AMOS 20 output. The convergent validity was established using Normed Fit Index (NFI). Each item in the scale was treated as a different approach to measure the respective construct as suggested by Ahire et al. (1996). A scale with values of 0.90 or above indicated evidence of strong convergent validity (Bentler & Bonett, 1980). Discriminant validity was ensured by demonstrating that a measure does not correlate very highly with other measures from which it was supposed to differ. The analysis should show that the average variance extracted for each pair of variables is greater than the squared correlation for the same pair, indicating that each construct is a distinct construct (Fornell and Larker, 1981). In the current study, CFA using common factor analysis was used to confirm that the indicators sorted themselves into SAS-A, SPIN, QoL, SIAS, BFNE, SRAQ, and BAI. Evidence of convergent validity was obtained as the measurement items represented their factors significantly; the critical ratio of every item exceeded the 1.96 value, as indicated in table 9.1. To test for discriminant validity, the average variance extracted and squared correlations were used in table 9.1. The analysis showed that the average variance extracted for some pairs of variables were lower than the squared correlation for the same pair, hence discriminant validity issues.

9.3 Outliers and Multivariate Normality

Assessment for normality and outliers for the three models was carried out in AMOS. Outliers are extreme values in the data that may lead to non-normal distribution of the data, thus contravening of the key assumptions of SEM. Multivariate outliers are extreme combinations of scores on two or more variables which are more of a concern in SEM. In general, non-normality leads to an overestimation of the chi-squared statistic thus leading to false rejection of the model, and underestimation or overestimation of the standard errors and critical ratios leading to either Type I or Type II errors. Multivariate normality and outliers was assessed using Mardia's multivariate kurtosis (p <0.5) and Mahalanobis distances respectively (Arbuckle, 2011; Gao et al., 2008). The

assessment of the skewness, kurtosis, and Mardia multivariate normality (MMN) scores (see table 9.2) for three models revealed univariate normality was achieved but with substantial departures from multivariate normality was MMN = 119 C.R. = 33).

Table 9.1: Construct validity and reliability results

	CR	AVE	MSV	ASV	SRAQPIb	BAIS	BFNE	QOLPH	QOLEH	SAS-AFNE	SAS-ASADG	SAS-ASADN	SIAS	SPINAP	SRAQPIc	SRAQPRa	SRAQPRb
SRAQPIb	0.76	0.61	0.23	0.06	0.78												
BAIS	0.73	0.35	0.16	0.09	-0.11	0.60											
BFNE	0.70	0.54	0.70	0.19	-0.07	0.39	0.73										
QOLPH	0.73	0.57	0.52	0.08	0.18	-0.33	-0.14	0.75									
QOLEH	0.67	0.51	0.52	0.09	0.24	-0.32	-0.24	0.72	0.71								
SAS-AFNE	0.85	0.58	0.70	0.20	-0.03	0.35	0.84	-0.14	-0.12	0.76							
SAS-ASADG	0.64	0.47	0.43	0.18	-0.19	0.41	0.56	-0.18	-0.31	0.66	0.68						
SAS-ASADN	0.71	0.55	0.41	0.16	-0.09	0.36	0.56	-0.19	-0.21	0.64	0.59	0.74					
SIAS	0.67	0.50	0.39	0.16	-0.23	0.37	0.63	-0.29	-0.21	0.61	0.56	0.59	0.71				
SPINAP	0.71	0.55	0.38	0.12	-0.22	0.32	0.51	-0.11	-0.18	0.53	0.62	0.47	0.35	0.74			
SRAQPIc	0.73	0.58	0.20	0.04	0.45	0.09	0.06	0.19	0.14	0.01	-0.08	0.05	-0.07	-0.14	0.76		
SRAQPRa	0.82	0.69	0.27	0.06	0.48	0.06	0.09	0.16	0.19	0.09	-0.02	-0.02	-0.14	-0.01	0.40	0.83	
SRAQPRb	0.85	0.73	0.27	0.04	0.27	0.11	0.10	0.12	0.07	0.13	0.00	0.06	-0.07	0.01	0.21	0.52	0.86

SRAQPI: Self-Referent Adjective Questionnaire (Positive Individualism)
BAIS: Beck Anxiety Inventory (Subjective)
QOLPH: World Health Organization's Quality of Life Questionnaire (Physical health)
QOLEH: World Health Organization's Quality of Life Questionnaire (Environmental health)
SAS-AFNE: Social Anxiety Scale for Adolescents (Fears of Negative Evaluations)
SAS-ASADN: Social Anxiety Scale for Adolescents (generalised Social Avoidance and Distress)
SIAS: Social Interaction Anxiety Scale
SPINAP: Social Phobia Inventory (Authority Problems)
SRAQPR: Self-Referent Adjective Questionnaire (Positive Relatedness)

VALIDITY CONCERNS

Discriminant Validity: The square root of the AVE for BFNE is less than one the absolute value of the correlations with another factor. The square root of the AVE for QOLEH is less than one the absolute value of the correlations with another factor. The square root of the AVE for SAS-AFNE is less than one the absolute value of the correlations with another factor. The AVE for BFNE is less than the MSV. The AVE for QOLEH is less than the MSV. The AVE for SAS-AFNE is less than the MSV.

Convergent Validity: The AVE for BAIS is less than 0.50. The AVE for SAS-ASADG is less than 0.50. The AVE for SIAS is less than 0.50. Reliability: The CR for QOLEH is less than 0.50. The CR for SIAS is less than 0.70.

Composite Reliability (CR) > Average Variance Extracted (AVE) >Maximum Shared Squared Variance (MSV), Average Shared Squared Variance (ASV).

Table 9.2: Univariate and multivariate normality

Variable	min	max	skew	c.r.	kurtosis	c.r.
BAI12N	1	4	1.16	12.12	0.22	1.17
SAS-A12FNE	0	5	0.22	2.25	-0.77	-4.01
BFNE11	0	5	0.62	6.53	-0.46	-2.42
BAI3N	1	4	1.10	11.56	0.11	0.58
BAI6N	1	4	0.76	7.90	-0.55	-2.86
SRAQ44PR	1	5	-0.71	-7.44	-0.68	-3.54
SRAQ25PR	1	5	-0.63	-6.64	-0.60	-3.12
SRAQ36PR	1	5	-0.60	-6.30	-0.63	-3.29
SRAQ34PR	1	5	-0.69	-7.18	-0.44	-2.33
SRAQ40PI	1	5	-0.25	-2.57	-0.95	-4.95
SRAQ16PI	1	5	-0.22	-2.30	-1.00	-5.24
SRAQ20PI	1	5	-0.32	-3.30	-0.59	-3.09
SRAQ32PI	1	5	-0.35	-3.68	-0.69	-3.61
SPIN1AP	1	5	0.64	6.67	-0.29	-1.49
SPIN16AP	1	5	0.66	6.91	-0.56	-2.95
SIAS19	1	5	0.74	7.76	-0.18	-0.95
SIAS18	1	5	0.41	4.28	-1.04	-5.46
SAS-A20SADN	0	5	0.20	2.07	-0.62	-3.26
SAS-A13SADN	0	5	0.23	2.37	-0.71	-3.74
SAS-A22SADG	0	5	0.34	3.50	-0.69	-3.64
SAS-A19SADG	0	5	0.47	4.94	-0.64	-3.37
SAS-A14FNE	0	5	0.59	6.22	-0.45	-2.36
SAS-A9FNE	0	5	0.47	4.94	-0.75	-3.90
SAS-A8FNE	1	5	0.25	2.59	-0.75	-3.95
QOL24EH	1	5	-0.61	-6.40	-0.18	-0.92
QOL23EH	1	5	-0.59	-6.17	-0.12	-0.61
QOL18PH	1	5	-0.54	-5.68	0.36	1.90
QOL17PH	1	5	-0.31	-3.24	0.02	0.09
BFNE5	0	5	0.86	9.04	-0.15	-0.77
BAI4S	1	4	0.61	6.37	-0.75	-3.93
BAI5S	1	4	-0.28	-2.90	-1.28	-6.72
Multivariate					*118.996*	*33.741*

Table 9.3: Multivariate outliers

Case number	Mahalanobis d-squared	*p*	Case number	Mahalanobis d-squared	*p*	Case number	Mahalanobis d-squared	*p*
417	86.75	0.00	461	60.30	0.00	556	50.16	0.02
59	82.68	0.00	462	60.30	0.00	11	49.59	0.02
509	80.23	0.00	552	60.30	0.00	334	49.30	0.02
593	73.77	0.00	386	59.91	0.00	199	49.18	0.02
649	72.48	0.00	387	59.91	0.00	3	48.73	0.02
443	72.47	0.00	245	59.80	0.00	4	48.73	0.02
179	69.14	0.00	216	59.36	0.00	631	48.42	0.02
347	69.11	0.00	2	59.07	0.00	585	48.40	0.02
418	69.11	0.00	210	58.86	0.00	367	48.36	0.02
215	68.36	0.00	240	57.77	0.00	249	48.34	0.02
650	66.84	0.00	241	57.77	0.00	361	47.72	0.03
457	65.34	0.00	196	57.58	0.00	158	47.67	0.03
180	65.15	0.00	429	57.21	0.00	471	47.37	0.03
37	64.94	0.00	283	56.41	0.00	629	47.07	0.03
549	64.52	0.00	490	56.35	0.00	519	46.63	0.04
569	63.25	0.00	280	54.37	0.01	327	46.56	0.04
512	63.21	0.00	636	53.94	0.01	202	46.51	0.04
513	63.21	0.00	207	53.84	0.01	657	46.48	0.04
562	62.98	0.00	112	53.23	0.01	586	46.33	0.04
576	61.94	0.00	637	52.65	0.01	643	46.33	0.04
75	61.86	0.00	654	52.38	0.01	143	46.26	0.04
507	61.76	0.00	337	51.95	0.01	459	45.91	0.04
508	61.76	0.00	510	51.86	0.01	332	45.73	0.04
550	61.48	0.00	144	51.21	0.01	20	45.55	0.05
530	61.33	0.00	145	51.21	0.01	21	45.55	0.05
181	60.98	0.00	257	51.14	0.01	354	45.48	0.05
237	60.96	0.00	372	50.93	0.01	421	45.46	0.05
194	60.72	0.00	536	50.80	0.01	502	45.37	0.05

Mahalanobis d-squared distances were examined, which showed 87 potential univariate outlying cases at $p = 0.05$ representing 13% of total cases (see table 9.3). There is no agreement in the literature on how to handle the outliers. Some researchers have suggested deletion of outliers, or transformation of the raw data (Bollen, 1989; Yuan et al., 2000). However, these procedures compromise the validity of the findings (loss of observations and, hence, information and model power) as new outliers emerge, leads to nonlinearity and does not improve overall model fit (Gao et al., 2008).

Therefore, in the current study the outliers were not removed from the final analysis so that the findings of this study could be fully representative of the desired population. However, the researcher reported bootstrapped unbiased parameter estimates, standard errors, and significance levels as recommended by Garson (2012). The bootstrapping function in AMOS can be used to assess the stability of parameter estimates when the multivariate normality assumptions do not hold (Garson, 2012; Arbuckle, 2011; Cheung and Lau, 2008). As the data was not normally distributed, the bootstrapping method (with a sample of 2,000) was applied in order to correct for the non-normal data (Garson, 2012). In this thesis, bootstrapped parameter estimates and two-tailed unbiased significance levels for direct, indirect, and total effects are reported.

9.4 Structural Modelling

The structural model tested (i) a set of regressions between BFNE, SIAS, SRAQ, BAI and QoL all at once through direct effects (H1 to H9), (ii) the moderation effects of sex and normal and clinical samples through critical ratios of parameter difference tests, and (iii) mediation effects of SAS-A and SPIN were tested through bootstrapping of indirect effects. After assessment of the measurement model, outliers and normality, the hypothesised relationships in the theoretical model were tested with full information maximum likelihood structural modelling by interpreting the direct effects. The mediation effects of Social Anxiety Scale for Adolescents and Social Phobia Inventory were tested through bootstrapping. Bootstrapping was performed in order to achieve unbiased estimates and obtain two-tailed significance levels for the indirect effects. Multi-group analysis was used to test the moderating effect of demographic characteristics including sex and normal and clinical samples. Recent research points to the potential use of both SAS-A and SPIN as a mediating variable of the relationship between QoL and BFNE, SIAS, SRAQ, and BAI. Structural Modelling using FIML was used to estimate unbiased parameter estimates of the structural model in order to test hypotheses of this study. Two structural models were proposed to test the hypothesised relationships and mediation through SAS-A and SPIN. The researcher specified the following two models to test the hypotheses. Model 1: Mediation through SAS-A to test

hypotheses H1-4a and H8a and Model 2 Mediation through SPIN to test hypotheses H1-4b and H8b.

9.4.1 Model 1: Mediation through SAS-A

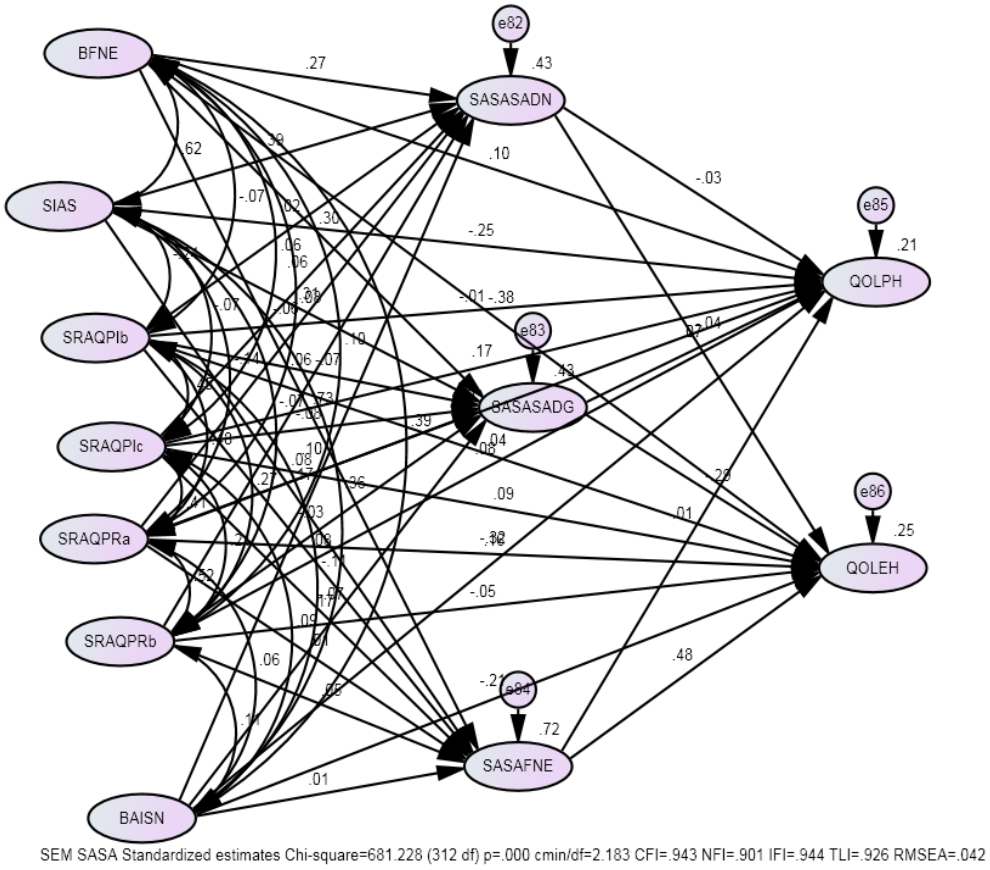


Figure 9.2: Mediation through SAS-A

Table 9.4: Regression weights for SAS-A model

DV		IV	Estimate	S.E.	C.R.	Beta	P
SAS-ASADN	<---	BFNE	0.27	0.08	3.35	0.27	***
SAS-ASADG	<---	BFNE	0.30	0.09	3.53	0.30	***
SAS-AFNE	<---	BFNE	0.83	0.09	9.31	0.73	***
SAS-ASADN	<---	SIAS	0.34	0.08	4.45	0.39	***
SAS-ASADG	<---	SIAS	0.27	0.08	3.40	0.31	***
SAS-AFNE	<---	SIAS	0.17	0.07	2.42	0.17	0.02
SAS-AFNE	<---	BAISN	0.02	0.07	0.24	0.01	0.81
SAS-ASADG	<---	BAISN	0.23	0.08	2.83	0.17	0.01
SAS-ASADN	<---	BAISN	0.14	0.08	1.80	0.10	0.07
SAS-AFNE	<---	SRAQPRb	0.05	0.04	1.23	0.05	0.22
SAS-AFNE	<---	SRAQPRa	0.01	0.06	0.25	0.01	0.81
SAS-AFNE	<---	SRAQPIc	-0.08	0.05	-1.55	-0.07	0.12
SAS-ASADG	<---	SRAQPRb	-0.03	0.05	-0.59	-0.03	0.56
SAS-ASADN	<---	SRAQPRb	0.05	0.05	1.11	0.06	0.27
SAS-ASADG	<---	SRAQPRa	0.07	0.07	1.07	0.08	0.28
SAS-ASADN	<---	SRAQPRa	-0.06	0.06	-0.91	-0.06	0.37
SAS-ASADG	<---	SRAQPIc	-0.07	0.06	-1.23	-0.08	0.22
SAS-ASADN	<---	SRAQPIc	0.05	0.05	0.96	0.06	0.34
SAS-ASADN	<---	SRAQPIb	0.02	0.05	0.31	0.02	0.76
SAS-ASADG	<---	SRAQPIb	-0.06	0.06	-1.02	-0.07	0.31
SAS-AFNE	<---	SRAQPIb	0.08	0.05	1.50	0.08	0.13
QOLPH	<---	BFNE	0.09	0.12	0.71	0.11	0.48
QOLEH	<---	BFNE	-0.34	0.14	-2.46	-0.38	0.01
QOLPH	<---	SAS-AFNE	0.00	0.11	-0.04	-0.01	0.97
QOLPH	<---	SAS-ASADG	0.06	0.08	0.65	0.07	0.52
QOLPH	<---	SAS-ASADN	-0.03	0.08	-0.37	-0.03	0.71
QOLEH	<---	SAS-ASADN	-0.04	0.08	-0.48	-0.04	0.63
QOLEH	<---	BAISN	-0.25	0.08	-3.11	-0.21	0.00
QOLPH	<---	BAISN	-0.35	0.08	-4.71	-0.32	***
QOLEH	<---	SRAQPRb	-0.04	0.05	-0.73	-0.05	0.47
QOLEH	<---	SRAQPRa	0.13	0.06	2.08	0.16	0.04
QOLEH	<---	SRAQPIc	0.08	0.06	1.32	0.09	0.19
QOLEH	<---	SRAQPIb	0.03	0.06	0.49	0.04	0.62
QOLPH	<---	SRAQPRb	0.06	0.04	1.35	0.08	0.18
QOLPH	<---	SRAQPRa	0.02	0.06	0.37	0.03	0.72
QOLPH	<---	SRAQPIc	0.14	0.05	2.65	0.18	0.01
QOLPH	<---	SRAQPIb	-0.01	0.05	-0.15	-0.01	0.88
QOLPH	<---	SIAS	-0.19	0.07	-2.77	-0.25	0.01
QOLEH	<---	SAS-AFNE	0.37	0.13	2.80	0.48	0.01
QOLEH	<---	SAS-ASADG	-0.25	0.10	-2.60	-0.29	0.01

9.4.2 Model 2: Mediation through SPIN

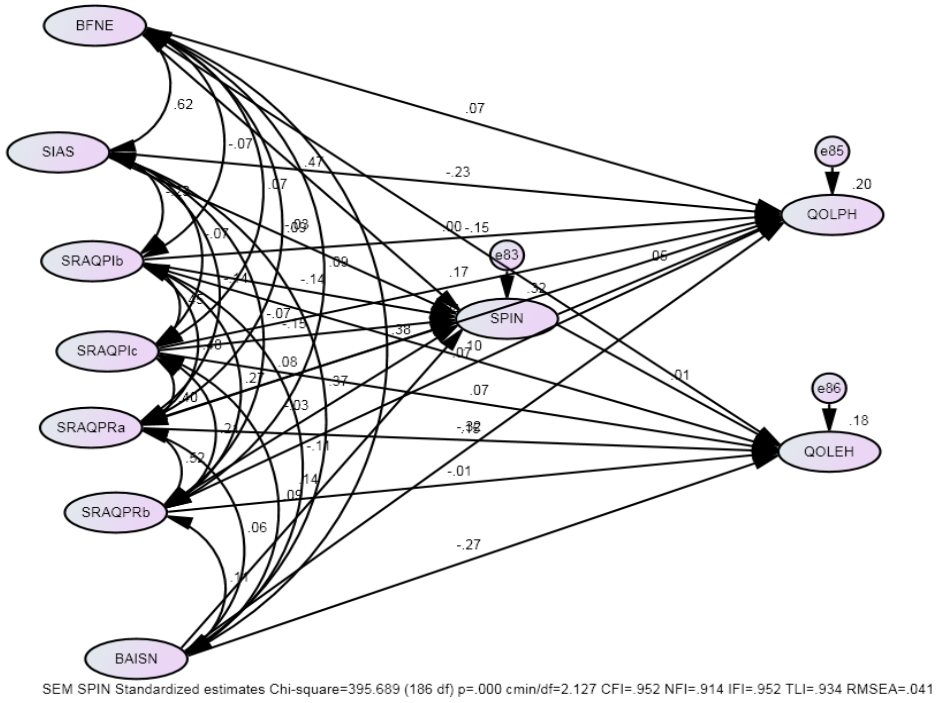


Figure 9.3: Mediation through SPIN

Table 9.5: Regression weights for SPIN model

DV		IV	Estimate	S.E.	C.R.	Beta	P
SPIN	<---	BFNE	0.54	0.10	5.38	0.47	***
SPIN	<---	SIAS	-0.03	0.08	-0.37	-0.03	0.71
SPIN	<---	BAISN	0.22	0.09	2.42	0.14	0.02
SPIN	<---	SRAQPRb	-0.03	0.05	-0.52	-0.03	0.60
SPIN	<---	SRAQPRa	0.08	0.07	1.13	0.08	0.26
SPIN	<---	SRAQPIc	-0.16	0.06	-2.52	-0.15	0.01
SPIN	<---	SRAQPIb	-0.13	0.07	-2.05	-0.14	0.04
QOLPH	<---	BFNE	0.06	0.08	0.79	0.07	0.43
QOLEH	<---	BFNE	-0.13	0.07	-2.03	-0.15	0.04
QOLPH	<---	SPIN	0.04	0.05	0.78	0.06	0.44
QOLEH	<---	BAISN	-0.32	0.08	-4.12	-0.27	***
QOLPH	<---	BAISN	-0.35	0.07	-4.89	-0.32	***
QOLEH	<---	SRAQPRb	-0.01	0.05	-0.19	-0.01	0.85
QOLEH	<---	SRAQPRa	0.12	0.06	2.03	0.15	0.04
QOLEH	<---	SRAQPIc	0.06	0.06	1.13	0.07	0.26
QOLEH	<---	SRAQPIb	0.08	0.06	1.43	0.10	0.15
QOLPH	<---	SRAQPRb	0.05	0.04	1.30	0.08	0.19
QOLPH	<---	SRAQPRa	0.03	0.06	0.54	0.04	0.59
QOLPH	<---	SRAQPIc	0.13	0.05	2.64	0.17	0.01
QOLPH	<---	SRAQPIb	0.00	0.05	-0.03	0.00	0.98
QOLPH	<---	SIAS	-0.16	0.06	-2.82	-0.23	0.01
QOLEH	<---	SPIN	0.01	0.06	0.18	0.01	0.86

9.4.3 Goodness-of-Fit Tests

The researcher compared the fit indexes of various models to test hypotheses and evaluate the two models. The chi-square (CMIN) value should not be significant if there is a good model fit, while a significant chi-square indicates lack of satisfactory model fit. If the model chi-square is less than .05, the model is rejected (Arbuckle, 2006). The relative chi-square (CMIN/DF) should be in the 2:1 or 3:1 range for an acceptable model. Kline (1998) says 3 or less is acceptable. Arbuckle (2006) observes that Confirmatory Fit Index (CFI) compares the existing model fit with a null model, which assumes the latent variables in the model are uncorrelated (independent model). As noted earlier, CFI and RMSEA are among the measures least affected by sample size (Fan et al., 1999). CFI varies from 0 to 1. CFI close to 1 indicates a very good fit. By

convention, CFI should be equal to or greater than 0.90 to accept the model. Normative Fit Index (NFI) was developed as an alternative to CFI, but one which does require making chi-square assumptions. NFI reflects the proportion by which the researcher's model improves fit compared to the null model. NFI values between 0.90 and 0.95 acceptable, and below .90 indicates a need to re-specify the model (Arbuckle, 2006). Tucker-Lewis Index (TLI) is similar to NFI, but penalizes for model complexity (Arbuckle, 2006). It is one of the fit indexes less affected by sample size. TLI close to 1 indicates a good fit. By convention, a TLI value below .90 indicates a need to re-specify the model. Root Mean Square Error of Approximation (RMSEA) is discrepancy per degree of freedom. By convention, there is good model fit if RMSEA is less than or equal to 0.05. There is adequate fit if RMSEA is less than or equal to .08. More recently, Hu and Bentler (1999) have suggested RMSEA $\leq$ 0.09 as the cut-off for a good model fit. Arbuckle (2006) holds the opinion that a value of about 0.08 or less for the RMSEA would indicate a reasonable error of approximation. The goodness-of-fit indices are summarised below.

The overall fit of the SAS-A model was acceptable, with χ^2 of 681.2 (*df* = 312, *p* = 0), Relative Chi square (χ^2/*df* ratio) of 2.1, CFI of 0.94, NFI of 0.90, TLI of 0.93 and RMSEA of 0.04 (figure 9.2). The independent variables explained 43% of variance in SAS-ADN, SAS-ASADG (43%), SAS-AFNE (72%), QOLEH (25%) and QOLPH (21%). The overall fit of the SAS-A model was acceptable, with χ^2 of 395.2 (*df* = 186, *p* = 0), Relative Chi square (χ2/*df* ratio) of 2.1, CFI of 0.95, NFI of 0.91, TLI of 0.93, and RMSEA of 0.04. The independent variables explained 33% of variance in SPIN, QOLEH (18%) and QOLPH (20%).

Table 9.6: Model fit indices and variance explained for model 1and 2

Model	NPAR	CMIN	*DF*	P	CMIN/DF	NFI	TLI	CFI	RMSEA
SAS-A	152	681.2	312	0	2.183	0.901	0.926	0.943	0.04
SPIN	113	395.6	186	0	2.127	0.914	0.934	0.952	0.04

Squared multiple correlations: Variance explained

SAS-A Model		**SPIN Model**	
Dependent variable	**Adjusted (R^2)**	**Dependent variable**	**Adjusted (R^2)**
SAS-ASADN	0.43	SPIN	0.33
SAS-ASADG	0.43	QOLEH	0.18
SAS-AFNE	0.72	QOLPH	0.20
QOLEH	0.25		
QOLPH	0.21		

9.5 Hypothesis Testing

To achieve the objectives of the study, a number of hypotheses were put forward to explain the relationships between Social interaction (SIAS), Cognitive features (BFNE), Cultural tendency (SRAQ), Anxiety (BAI), Social anxiety (SA), and Quality of life (QoL). As the data was not normally distributed, ML bootstrapping method (with a sample of 2,000) was applied in order to correct for the non-normal data (Garson, 2012). The researcher reported bootstrapped parameter estimates and two tailed unbiased significance levels for direct, indirect, and total effects as reported in AMOS.

9.5.1 Direct effects between independent variables and dependent variables (H1 –H9)

The first objective of this study was to examine the linkages between SAS-A, SPIN, BFNE, SIAS, SRAQ, BAI and QoL. Regression coefficient was used to estimate the strengths of associations between latent variables in the structural models. The bootstrapped parameter estimates between SAS-A, SPIN, BFNE, SIAS, SRAQ, BAI and QoL are listed in table 9.7. The following hypotheses were tested:

9.5.1.1 H1) There is a relationship between Cognitive aspect (BFNE) and Social anxiety (SA) (ACCEPTED)

a) There is a relationship between Cognitive aspect (BFNE) and Social anxiety (SA) Social Anxiety Scale for Adolescents (SAS-A) **(A)**
b) There is a relationship between Cognitive aspect (BFNE) and Social Phobia Inventory (SPIN) **(R)**

The data in table 9.7 show that there is a significant positive correlation between Cognitive aspect and social anxiety measured by Social Anxiety Scale for Adolescents and Social Phobia Inventory hence H1 accepted. *SAS-A was measured by three factors.* There is a positive relationship between cognitive aspect and Social Anxiety Fears of Negative Evaluations (SAS-AFNE), Social Anxiety generalised Social Avoidance and Distress (SAS-ASADG) and Social Anxiety Social Avoidance and Distress specific to new situations or unfamiliar peers (SAS-ASADN).

9.5.1.2 H2) There is a relationship between Social interaction (SIAS) and Social anxiety (SA)

c) There is a relationship between Social interaction (SIAS)and Social anxiety (SA) Social Anxiety Scale for Adolescents (SAS-A) **(A)**
d) There is a relationship between Social interaction (SIAS) and Social Phobia Inventory (SPIN) **(R)**

The results in table 9.7 indicate that Social interaction is positively associated with Social Anxiety measured by Fears of Negative Evaluations (SAS-AFNE), generalised Social Avoidance and Distress (SAS-ASADG) and Social Avoidance and Distress specific to new situations or unfamiliar peers (SAS-ASADN). However there was no relationship with social anxiety measured by Social Phobia Inventory (SPIN).

9.5.1.3 H3) There is a relationship between Cultural tendency (SRAQ) and Social anxiety (SA)

e) There is a relationship between Cultural tendency (SRAQ) and Social anxiety (SA) Social Anxiety Scale for Adolescents (SAS-A) (**A**)

f) There is a relationship between Cultural tendency (SRAQ) and Social Phobia Inventory (SPIN) **(A)**

The results in table 9.7 reveal that there is a relationship between cultural tendency and social anxiety. Cultural tendency was measured with two factors positive relatedness and positive individualism. There was a positive relationship between cultural tendency measured by Self-Referent Adjective Questionnaire for Positive Relatedness (SRAQPR) and Social Anxiety measured by Fears of Negative Evaluations (SAS-AFNE) and Social Phobia Inventory *(SPIN).* Cultural tendency measured by Self-Referent Adjective Questionnaire for Positive Individualism (SRQPI) was positively associated with social anxiety measured by Social Avoidance and Distress specific to new situations or unfamiliar peers (SAS-ASADN) but negatively associated with Social Anxiety measured by Fears of Negative Evaluations (SAS-AFNE), social anxiety measured by generalised Social Avoidance and Distress (SAS-ASADG) and Social Phobia Inventory.

9.5.1.4 H4) There is a relationship between Anxiety (BAI), and Social anxiety (SA)

g) There is a relationship between Anxiety (BAI) and Social anxiety (SA) Social Anxiety Scale for Adolescents (SAS-A) (**A**)
h) There is a relationship between Anxiety (BAI) and Social Phobia Inventory (SPIN) (**A**)

The results in table 9.7 confirm that there is a positive relationship between anxiety measured by the Beck Anxiety Inventory and Social anxiety. There is a positive relationship between Beck Anxiety Inventory Subjective (BAIS) and, social anxiety measured by generalised Social Avoidance and Distress (SAS-ASADG), social anxiety measured by Social Avoidance and Distress specific to new situations or unfamiliar peers (SAS-ASADN) and Social Phobia Inventory (SPIN). There was no relationship with Social Anxiety measured by Fears of Negative Evaluations (SAS-AFNE).

Table 9.7: Bootstrapped regression weights for direct effects

	Dependent Variables											
	Social Anxiety Scale for Adolescents (SAS-A)						**Social Phobia Inventory (SPIN)**		**Quality of life (QoL)**			
Independent Variables	**SAS-AFNE**		**SAS-ASADG**		**SAS-ASADN**		**SPINAP**		**QOLPH**		**QOLEH**	
	Beta	***p***	**Beta**	***p***	**Beta**	***p***	**Beta**	***p***	**Beta**	***p***	**Beta**	***p***
BFNE	**0.72**	**0.01**	**0.31**	**0.00**	**0.26**	**0.03**	**0.47**	**0.00**	0.08	0.24	**-0.22**	**0.01**
SIAS	**0.16**	**0.00**	**0.30**	**0.01**	**0.41**	**0.01**	0.01	0.78	**-0.19**	**0.01**	0.07	0.12
SRAQPRb	0.01	1.00	-0.08	0.07	0.04	0.23	-0.04	0.25	0.07	0.13	0.00	0.98
SRAQPRa	**0.05**	**0.04**	0.06	0.11	-0.06	0.23	**0.12**	**0.02**	0.07	0.14	**0.20**	**0.01**
SRAQPIc	**-0.06**	**0.01**	-0.03	0.45	**0.09**	**0.02**	**-0.07**	**0.05**	**0.20**	**0.01**	**0.11**	**0.03**
SRAQPIb	0.04	0.11	**-0.09**	**0.01**	0.01	0.74	**-0.20**	**0.02**	0.00	0.89	0.06	0.17
BAIS	0.04	0.14	**0.19**	**0.01**	**0.11**	**0.01**	**0.13**	**0.02**	**-0.34**	**0.00**	**-0.28**	**0.01**
SAS-AFNE									0.04	0.65	**0.54**	**0.01**
SAS-ASADG									0.07	0.15	**-0.33**	**0.02**
SAS-ASADN									**-0.10**	**0.05**	**-0.08**	**0.05**
SPIN									0.03	0.53	0.03	0.58

Note: The red parameters in the table indicate mediated effects (indirect effects) and significance levels and significant relationships which are in bold.

9.5.1.5 H5) There is a relationship between Cognitive factors (BFNE) and Quality of life (QoL)

The results in table 9.7 indicate that cognitive factors are negatively related to quality of life measured by environmental health (QOLEH) but are not related to Quality of life measured by physical health (QOLPH).

9.5.1.6 H6) There is a relationship between Culture tendency (SRAQ) and Quality of life (QoL)

The results in table 9.7 indicate that culture tendency measured by the Self-Referent Adjective Questionnaire for Positive Relatedness (SRAQPR) positively predicts Quality of life measured by physical health (QOLPH) but it is not correlated to quality of life measured by environmental health (QOLEH). Culture tendency measured

by the Self-Referent Adjective Questionnaire for Positive Individualism (SRQPI) positively predicts quality of life Physical health and Environmental health.

9.5.1.7 H7) There is a relationship between Anxiety (BAI) and Quality of life (QoL)

The results in table 9.7 indicate that anxiety (BAIS) is negatively related to both quality of life measured by environmental health (QOLEH) and physical health (QOLPH).

9.5.1.8 H8) There is a relationship between Social interaction (SIAS) and Quality of life (QoL)

The results in table 9.7 indicate that Social interaction is negatively related to quality of life measured by physical health (QOLPH) but are not related to Quality of life measured by environmental health (QOLEH).

9.5.1.9 H9) There is a relationship between Social anxiety (SA) and Quality of life (QoL)

c) There is a relationship between Social Anxiety Scale for Adolescents (SAS-A) and Quality of life (QoL) (**A**)

d) There is a relationship between Social Phobia Inventory (SPIN) and Quality of life (QoL) (**A**)

The results in table 9.7 reveal associated with Social Anxiety measured by Fears of Negative Evaluations (SAS-AFNE) were positively associated with Quality of life measured by environmental health (QOLEH). Social anxiety measured by Generalised Social Avoidance and Distress (SAS-ASADG) was negatively related to Quality of life measured by environmental health (QOLEH). Social anxiety measured by Social Avoidance and Distress specific to new situations or unfamiliar peers (SAS-ASADN) was negatively associated with both Quality of life measured by environmental health (QOLEH) and physical health (QOLPH). There is no relationship between social anxiety measured by the Social Phobia Inventory and Quality of life.

9.5.2 Mediation effects of social anxiety (Social Anxiety Scale for Adolescents, SAS-A) and Social Phobia Inventory (SPIN))

The researcher tested the mediation effects of Social anxiety (SA) on relationships between culture tendency, social interaction, cognitive aspect and quality of life. The mediation effects of SAS-A and SPIN were investigated by reporting direct effects, indirect effects (mediated) and total effects and associated two-tailed significance levels at 0.05. The standardised significance levels were obtained from the bootstrapping function of AMOS 20 (Arbuckle, 2006) and correcting for sampling bias.

9.5.2.1 H10) Social Anxiety mediates the effect of Social interaction (SIAS), Cognitive aspect (BFNE), Culture tendency (SRAQ), and Anxiety (BAI) on Quality of life (QoL)

e) Social Anxiety Scale for Adolescents (SAS-A) mediates the relationships between Quality of life (QoL) and Social interaction (SIAS), Cognitive aspect (BFNE), Culture tendency (SRAQ), and Anxiety (BAI) (**A**)

f) Social Phobia Inventory (SPIN) mediates the relationships between Quality of life (QoL) and Social interaction (SIAS), Cognitive aspect (BFNE), Culture tendency (SRAQ), and Anxiety (BAI) (**R**)

Table 9.8 reports the mediation effects of SAS-A. The red parameters in the table indicate mediated effects (indirect effects) and significance levels and significant relationships which are in bold. The results revealed that Social Anxiety Scale for Adolescents (SAS-A) significantly mediated relationships between subjective anxiety (BAIS), Culture measured by positive individualism (SRAQPI) and Cognitive aspect (BFNE) and quality of life environmental health (QOLEH). However there was no mediation effect through Social Phobia Inventory (SPIN).

Table 9.8: Mediation effect results

	QOLPH						QOLEH					
	direct		Indirect		Total		direct		Indirect		Total	
	Beta	*p*	Beta	*p*	Beta	*p*	Beta	*p*	Beta	*p*	Beta	*p*
MEDIATION Through Social Anxiety Scale for Adolescents (SAS-A)												
BAIS	-0.34	0.00	0.00	0.60	-0.34	0.00	-0.23	0.00	**-0.05**	**0.01**	-0.28	0.01
SRAQPRb	0.07	0.13	-0.01	0.06	0.06	0.19	-0.03	0.47	0.03	0.17	0.00	0.98
SRAQPRa	0.07	0.14	0.01	0.06	0.08	0.08	0.19	0.01	0.01	0.44	0.20	0.01
SRAQPIc	0.20	0.01	-0.01	0.08	0.19	0.01	0.13	0.02	-0.03	0.07	0.11	0.03
SRAQPIb	0.00	0.89	-0.01	0.37	-0.01	0.80	0.01	0.85	**0.05**	**0.01**	0.06	0.17
SIAS	-0.19	0.01	-0.01	0.59	-0.20	0.01	0.12	0.04	-0.04	0.07	0.07	0.12
BFNE	0.08	0.24	0.02	0.77	0.10	0.06	-0.49	0.02	**0.27**	**0.01**	-0.22	0.01
MEDIATION Through Social Phobia Inventory (SPIN)												
BAIS	-0.34	0.01	0.00	0.48	-0.34	0.00	-0.28	0.01	0.00	0.53	-0.28	0.01
SRAQPRb	0.06	0.21	0.00	0.30	0.06	0.19	0.00	0.94	0.00	0.43	0.00	0.98
SRAQPRa	0.07	0.11	0.00	0.38	0.08	0.08	0.20	0.01	0.00	0.48	0.20	0.01
SRAQPIc	0.19	0.01	0.00	0.27	0.19	0.01	0.11	0.03	0.00	0.28	0.11	0.03
SRAQPIb	0.00	0.89	-0.01	0.49	-0.01	0.80	0.06	0.16	-0.01	0.58	0.06	0.17
SIAS	-0.20	0.01	0.00	0.53	-0.20	0.01	0.07	0.12	0.00	0.60	0.07	0.12
BFNE	0.09	0.13	0.02	0.50	0.10	0.06	-0.23	0.02	0.01	0.58	-0.22	0.01

9.5.3 Moderation effects of demographic characteristics (sex and normal / clinical samples)

The researcher tested the moderation effects of sex and group (normal and clinical samples) on the direct relationships. SEM Multiple Group Analysis was used to compare the model across the demographic characteristics testing for parameter invariance across the groups (Garson, 2009). The parameter differences among the groups were examined using critical ratios for differences between parameters tool (Garson, 2012). The results on significant differences on some parameters are summarised.

9.5.3.1 H11) Group (normal and clinical samples) moderates the relationships between Quality of life (QoL) and Social interaction (SIAS), Cognitive aspect (BFNE), Culture tendency (SRAQ), Anxiety (BAI), Social anxiety (SA)

The sample was divided into normal and clinical groups. For the Social Anxiety Scale for Adolescents (SAS-A) model, the results in table 9.9 indicate that there were significant differences between normal and clinical samples on correlations between social anxiety measured by Generalised Social Avoidance and Distress (SAS-ASADG) and social interaction (-2.195**); correlations between Social Anxiety measured by Fears of Negative Evaluations (SAS-AFNE) and culturetendency (Positive Individualism) (C.R. = 2.027**). For the Social Phobia Inventory (SPIN) model, there was a significant difference on correlation between social anxiety measured by Generalised Social Avoidance and Distress (SAS-ASADG) and social interaction (-2.195**).

9.5.3.2 H12) Gender moderates the relationships between Quality of life (QoL) and Social interaction (SIAS), Cognitive aspect (BFNE), Culture tendency (SRAQ), Anxiety (BAI), Social anxiety (SA).

Sex was divided into two groups (male and female).

The results in table 9.10 (in Appendices 6) indicate that sex significantly moderates relationships between Social interaction (SIAS), Cognitive aspect (BFNE), Culture tendency (SRAQ), Anxiety (BAI), Social anxiety (SA) and quality of life. For the Social Anxiety Scale for Adolescents (SAS-A) model there were significant critical ratios for differences between parameters for male and female on the following correlations: Quality of life and anxiety (C.R. = 3.251***), Social interaction (C.R. = 2.63***), Culture tendency (Positive Individualism) (C.R. = 3.28***) and Culture Positive Individualism (C.R. = 3.28***) variables. For the Social Phobia Inventory (SPIN) model, there are significant differences between male and female on correlations between Social Phobia Inventory and Culture Positive Relatedness (C.R. = 2.678***) and Culture Positive Individualism (C.R. = 2.001**); correlation between Quality of life and anxiety (C.R. = 3.553***), Social interaction (C.R. = 2.392**), Culture Positive Individualism (C.R. = -3.149***).

Table 9.9: Moderation effects normal/clinical

DV		IV	Estimate	P	Estimate	P	z-score
Normal/clinical							
			Normal		**Clinical**		
SAS-A Model							
SAS-ASADG	<---	SIAS	0.36	0.00	0.15	0.06	-2.195**
SAS-AFNE	<---	SRAQPIb	0.01	0.86	0.12	0.01	2.027**
SPIN Model							
SAS-ASADG	<---	SIAS	0.358	0.00	0.15	0.057	-2.195**

Table 9.10: Moderation effects sex

Gender							
			Male		**Female**		
SAS-A Model							
QOLEH	<---	SIAS	-0.04	0.64	0.23	0.00	2.636***
QOLEH	<---	SRAQPIb	-0.08	0.26	0.10	0.04	2.122**
QOLEH	<---	SRAQPIc	0.23	0.00	0.02	0.63	-2.731***
QOLPH	<---	BAIS	-0.50	0.00	-0.23	0.00	3.251***
QOLPH	<---	SRAQPIb	-0.15	0.03	0.13	0.01	3.287***
QOLPH	<---	SRAQPIc	0.29	0.00	0.10	0.04	-2.285**
SPIN Model							
QOLEH	<---	SIAS	-0.051	0.520	0.181	0.001	2.392**
QOLEH	<---	SRAQPIc	0.232	0.000	-0.017	0.732	-3.149***
QOLPH	<---	SRAQPIb	-0.149	0.036	0.123	0.017	3.101***
QOLPH	<---	SRAQPIc	0.278	0.000	0.106	0.032	-2.146**
QOLPH	<---	BAIS	-0.515	0.000	-0.223	0.000	3.553***
SPINA	<---	SRAQPRb	0.072	0.247	-0.128	0.006	-2.577**
SPINA	<---	SRAQPRa	-0.027	0.709	0.206	0.000	2.678***
SPINA	<---	SRAQPIc	-0.137	0.017	0.010	0.823	2.001**

9.6 Summary

The current study was partly aimed to investigate the relationships between social interaction, cognitive aspect, culture tendecny, anxiety, social anxiety and quality of life. The overall fit of the SAS-A model was acceptable. In terms of direct effects between study variables, significant positive correlation between cognitive aspect and

social anxiety was found. There was a positive relationship between culture tendecny, social anxiety and social phobia inventory. Positive relationship was found between anxiety and social anxiety. Mediation effects of SAS-A and SPIN were investigated by reporting direct effects, indirect effects and total effects. Results indicated that social anxiety significant mediated the relationships between subjective anxiety, positive individualism, cognitive aspect and environmental health. However, there was no mediation through SPIN model. In terms of moderation effects of demographic characteristics, it can be concluded that significant differences between normal and clinical samples were found on correlation between social anxiety on the SAS-A model. Moreover, sex significantly moderates relationships between all model variables. For the SPIN model, there were significant differences on correlation between social phobia inventory and positive relatedness. The next chapter discusses the results.

CHAPTER TEN

10 DISCUSSION

10.1 Overview

The overall aim of this research was to evaluate social anxiety in adolescents with respect to determining how social anxiety affects quality of life, cognitive aspect and social interaction. Moreover, a cross-cultural analysis was conducted between adolescents in an 'Eastern' and a 'Western' society, the former assumed to hold more collectivist values and the latter more individualistic values. A cross-sectional study was conducted to test the hypothesised relationships using the structural equation modelling approach. The objectives of the study were:

1. To explore the reliability and validity of new, multi-dimensional scales for measuring social anxiety and its correlates in Arabic cultures which might have value in both diagnosis and research in Arab countries, such as Saudi Arabia. At the same time, it will be designed to develop mechanisms for measuring the quality of life in a Saudi population.

2. To analyse the cultural aspects of social anxiety by comparing adolescents from UK and Saudi Arabian populations, which will have potential clinical implications for both assessment and therapy in Saudi Arabia.

3. To determine the prevalence of social anxiety among adolescents and its relation to quality of life.

4. To propose and validate a model that explains the relationships and evaluates possible links (causal or correlational) between social anxiety, its cognitive and social correlates, quality of life, and cultural tendencies (such as individualism vs. collectivism).

5. To determine sex differences in social anxiety and its cognitive and cultural correlates among adolescents in Saudi Arabia.

6. To indicate age differences in social anxiety and its cognitive and cultural correlates among adolescents in Saudi Arabia.

It can be argued that if a person is not comfortable with education or in developing relationships with others, they can be said to have a social disorder (Mendlowicz & Stein, 2000; Rapaport et al., 2005; Schneier et al., 1994). This chapter demonstrates that the functioning of adolescents with social phobia in different social institutions is impaired because of their lack of interactions.

10.2 Social Anxiety and Quality of Life

Saudi adolescents with social anxiety scored less on the World Health Organization's Quality of Life Questionnaire (WHOQOL-BREF) scale than Saudi adolescents without social anxiety. In line with previous studies, the findings show that social anxiety disorder has an adverse effect on life satisfaction (Hambrick, Turk, Heimberg, Schneier & Leibowitz, 2003). It severely affects the quality of life of a person, making him or her unstable both physically and psychologically. The results of the WHOQOL-BREF also show how their quality of life is adversely affected. This study is consistent with Wittchen's et al. (2000) findings about quality of life, physical and role functioning, and above all physical pain.

Safren et al. (1997) found that patients with social anxiety significantly reported their quality of life to be poor. In a study of patients with social phobia, patients were found to have behavioural problems such as obsessive-compulsive disorder and panic. Studies have suggested that the risk of other psychiatric conditions is increased in individuals with social anxiety. Moreover, individuals with social anxiety often have a history of depression (Moscovitcha et al., 2005; Chavira et al., 2004). Individuals with social anxiety are also likely to exhibit suicide ideation, to be financially dependent and to have poor education, social support and income (Schneier et al., 1992; Kessler et al., 1994). In a non-clinical sample of individuals with social anxiety, Stein and Kean (2000) found that poor quality of life, as measured by the Quality of Well-Being Scale, was associated with social anxiety disorder. Schneier et al. (1992) report that persons who are suffering from social anxiety are less likely to be married, have lower levels of

workplace productivity and education achievement. These outcomes were also reported in individuals with impaired social functioning which is related to social anxiety disorder (Schneier et al., 1994; Wittchen, Fuetsch, Sonntag, Muller, & Liebowitz, 1999). Eng et al. (2005) found that individuals with anxiety disorder were significantly dissatisfied with the quality of their social functioning and achievement. In addition to this, all domains of life satisfaction among subjects were inversely related with the severity of social anxiety. Thus, a marked impairment in social, psychosocial and physical domains is associated with social anxiety (Wittchen et al., 1996; Schneier et al., 1994). Some studies have shown that the quality of life can be improved by effective treatment (e.g., Stein et al., 1999; Safren. et al., 1997).

The impact of social anxiety is significant. Some studies have suggested that lifetime comportment of social phobia is associated with impaired work performance, less social interaction, and more school problems during adolescence. Wittchen and Beloch (1996) have suggested two types of impairment caused by social phobia. The most visible is poor scores in the short form (SF-36) scale survey. This may be interpreted as a severe impairment on "function and quality of life through its association with the development due to co-morbid pathology" (Simon, Otto, Korbly, Peters, Nicolaou & Pollack, 2002). Apart from this, Wittchen and Beloch (1996) observe that social phobia reduces "self-rated quality of life" which limits role-playing fields because of emotional problems and impaired social functioning, general mental health and vitality. They also found the fact that adolescence is a period of particularly high risk for impairments caused by social anxiety. Results identified by the Liebowitz Disability Self-Rating Scale confirm the fact that social phobia creates problems in education, career and romantic relations. It also affects work productivity and daily routine (Wittchen et al., 2000). Causing irregularity in the work situation, it reduces the work performance of sufferers. Eventually social anxiety may create lasting illness which may turn chronic.

Wittchen and Beloch (1996) indicated how the quality of life among subjects with social phobia differs from matched controls without social phobia and other mental disorders. They examined the general quality of life, lifetime and current psychological

impairments and the health economic impact of social phobia. Their study found that subjects with social phobia demonstrated a highly significant reduction in quality of life, work and daily life activities. However, no clear evidence was found to show if the participants with social phobia used health services significantly more than the matched control group.

Stein and Kean (2000) examined the range of disability and reduced quality of life associated with social phobia in the community. This study also examined functioning across the two subtypes of social phobia: The generalised and non-generalised forms. Individuals with social phobia were impaired on a broad spectrum of measures. They were also more likely than persons without social phobia to rate themselves as 'low functioning' on the Quality of Well-Being Scale.

With a view to diagnosing the causes and effects of social anxiety in adolescents, Wittchen and Beloch (1996) used the Composite International Diagnostic Interview (CIDI core version 1.1) to diagnose social phobia. Results showed that there are three main fields of phobia from which most adolescents suffer. The authors examined 65 individuals with experience of social phobia, and found that most suffered from the following problems: "to speak in front of others (91%), to speak with others (59%), and to speak in front of a group (52%)". They also showed that 83% of the subjects feel anxiety as they blush and shake when exposed to others, while 85% constantly have the fear that they may face something embarrassing. Finally, 92% of phobic subjects were concerned about the critical situations they may face.

Interestingly, Simon et al. (2002) examined the relative effects of social anxiety disorder and panic disorder on quality of life. They found that patients with social anxiety are substantially impaired in terms of quality of life, but to a lesser extent than patients with panic disorder. However, the early onset of social anxiety disorder underscores the importance of early detection and treatment to reduce the impact of social anxiety on quality of life. Hambrick et al. (2003) explored the relationship between disability and quality of life within a sample of patients seeking treatment for social anxiety disorder. They suggest that the experience of disability mediates the relationship between a patient's experience of symptoms and life satisfaction.

10.3 Social Anxiety and Types of Impairment

The study result found that adolescents were affected by social anxiety. This finding of social phobia creates different types of impairment in a person (Schneier et al., 1992), affecting areas such as educational and social role functioning. It may affect students' work performance, their ability to interact with others and classroom performance (Davidson et al., 1994; Wittchen 1994). SP hampers not only the psychological development of an individual, but also his or her total existence. It affects their academic, social and career achievement. It creates constant barriers to becoming involved in social functioning (Eng, Coles, Heimberg & Safrend, 2005). For these reasons, SP among adolescents should be areas of urgent focus (Liebowitz et al. 1985). It is very important to detect disorders because in many cases; the disorder can become chronic.

Anxiety disorders can disrupt an individual's social and occupational functioning. Epidemiologically, it has been shown that early withdrawal of socially phobic students from school is a primary cause of psychiatric disorders (Stein & Kean, 2004). Different psychosocial variables such as academic performance and social functioning are adversely affected in students with social phobia (Berg, 1992; Davidson et al., 1993; Kessler et al., 1994; Last & Strauss, 1990; Last et al., 1992). This is truer for those with social phobia than those students with other mental orders (Kessler et al., 1995).

In addition, social phobia entails lower role functioning. Comparatively, the study shows that those with and without SP differ in terms of their emotional, general health, vitality, social functioning and mental health scores. Individuals with SP become a burden to society and this kind of thought leads the individual to develop more severe social phobia which in turn develops into acute illness (Kessler et al., 1998; Kroenke et al., 2007; Safren et al., 1996; Stein & Kean, 2000).

Comorbidity can often compound the impacts of social phobia in accelerating the dysfunctional ability and lowering quality of life. Clinical study shows that social phobia has links with many unbearable disorders (Schneier et al., 1994), although more

studies need to be done. This study also focused on the disparities of the social phobia on different age groups and sexes in Saudi Arabian adolescents.

10.4 Gender Differences

In the Western world, adolescent girls score higher on the Social Anxiety Scale for Adolescents (SAS-A) (Garcia-Lopez, Olivares, Hidalgo, Beidel & Turner, 2001) than do boys (La Greca & Lopez, 1998; Inderbitzen & Walters, 2000; Olivares et al., 2005) which was not found in China, although adults were studied as well (Lam et al., 2002; Lee et al., 2005). According to these findings, it was hypothesised that girls would report higher levels of social anxiety than boys. The results showed that Saudi boys scored higher than girls on this measure. It may be argued that boys are more burdened than girls with expectations due to Saudi social and cultural values.

The present study also shows higher scores of social anxiety among boys in the SAD–New subscale only, whereas no difference was found between boys and girls in the SAS-A total score, the SAD-General or the FNE. However, in the Social Phobia Inventory (SPIN) (Connor et al., 2000), boys scored higher on the total score and two of its subscales, namely, fear and avoidance than girls. This may be the case because socio-cultural conventions usually impose more emphasis on social functioning on boys, so they may become vulnerable to the expectation and begin to suffer from social phobia. Boys with social phobia are seen to possess shyness and timidity which are considered as more conventional characteristics of girls. The more boys try to overcome these problems, the more they tend to become concerned about their problems. The next section discusses the age, sex and grade group differences.

Sex differences in social anxiety symptoms have been identified by some studies. Being the centre of attention was perceived as a greater social fear by women than by men. Similarly, Wittchen et al. (1999) found that in certain social situations – such as giving a speech in front of an audience, being observed at work, and talking to an authority figure – women had higher levels of fear than men. Adolescent girls also tend to be more anxious than boys about the risk of negative evaluations. Moreover, others'

judgments of one's appearance have been found to be more of a worry for adolescent girls than for boys (Rosen & Aneshensel, 1976; Nolen-Hoeksema & Larson, 1992).

10.5 Differences between Age Groups

In addition, it was hypothesised that there are statistically significant differences in the community sample across the three different age groups in terms of social interaction anxiety, anxiety, social interaction, fear of negative evaluation, social phobia inventory, social anxiety, self-referent adjective and quality of life. Numerous studies have been done on the impact of social anxiety on both sexes. Like the previous studies, this study found that girls are more vulnerable to social anxiety than boys. It was also found that adolescent girls are very conscious about their social position (Kashani, Orvaschel, Rosenberg & Reid, 1989) which can be a cause of constant anxiety in them. This is aligned with the finding that adolescent girls are very concerned about their relationships with others which can also become a matter of anxiety for them (Maccoby, 1990).

In terms of age group differences, few previous studies have used age differences as a paradigm for studying social anxiety (La Greca, 1998). However, the present study found different levels of social anxiety in junior and senior adolescents. According to previous findings, junior girls suffer more from social anxiety than those of the senior section. Buss (1986) and Elkind (1980) explain this as the tendency of junior girls to engage in self-presentation. This entails being concerned about everything that they are related to and feeling higher levels of anxiety. In addition, junior school girls go through physical changes during puberty which bring substantial changes to their psychological world. This is a time when they look for new friends with new expectations and desires. They want to create a domain of their own which is constantly challenged by realities and so they face further anxieties. On the other hand, senior girls become more concerned about the reality and can fit their demands into social life in more realistic ways, which helps them to lessen their social anxiety.

Furthermore, the transition in girls from the early childhood to adolescence entails cognitive changes, including the development of formal operational thought, a

sense of discrimination, and greater self-perception. Girls in this stage can become very self-critical and may also face criticism by others. It is primarily in this cognitive realm that girls' social anxiety is found, as opposed to in the behavioural realm which encapsulates the phenomenon of social avoidance. In this study, results for the SAS-A subscales revealed that no grade group differences were found in these samples.

The study found that different levels of social anxiety exist in elementary and high school students. La Greca (1998) conducted a study on the high school students which showed that they had lower levels of social anxiety, as indicated by SAS-A scores, compared to elementary school students, who reported higher anxiety scores, shown in both of the total and FNE scores (La Greca, 1998). This concludes the discussion of the disparities between the sex and grade group on the SAS-A. The following section addresses the differences between the same groups based on the Beck Anxiety Inventory (BAI) (Beck et al., 1990).

The result is very canonical. Aligned with previous studies, scores on the BAI show that girls are more open to social anxiety than their male counterparts. Using a clinical interview, Lewinsohn, Hops, Roberts, Seeley and Andrews (1993) studied a non-clinical adolescent population. They found that female adolescents suffer from depression to a greater degree than their male counterparts. In addition, they found that girls reported higher anxiety symptoms than boys, as measured by BAI. The result for the present study is consistent with a self-report study by Bernstein, Crosby, Perwien and Borchardt (1996) who also found higher anxiety scores among the girls, on the Revised Children's Manifest Anxiety Scale.

Apart from sex disparities, social phobia in Saudi adolescents varies based on age differences. In studies in the West, the Social Anxiety Scale for Adolescents (SAS-A) was applied to investigate social phobia among adolescents but no significant results were found (Garcıa-Lopez et al., 2001; La Greca, 1999). A significant result was however found among the mid-adolescents, who showed more social anxiety than the older ages in Western countries (Cunha et al., 2004; Inderbitzen & Walters, 2000; Inderbitzen et al., 2004). Similarly, Bayramkaya et al. (2005) found significant age-group differences on social anxiety among students. Using the Capa Social Phobia Scale

on adolescents aged 14-16 years; it was found that the scores were higher among older students and lower among the younger. Similarly, in China, older adolescents (16-19 years) were found to suffer from more social anxiety than their younger counterparts (14-16 years). In this study, the Chinese version of the Multidimensional Anxiety Scale for Children was used (Yao et al., 2006). The authors speculated that as adolescents grow up, they become more aware of their anxieties, leading to higher scores of anxiety.

Demir et al. (2013) conducted a study in an urban population of Turkish children and adolescents using the Social Anxiety Scale for Children Revised (SASC-R) and the Capa Social Phobia Scale for Children and Adolescents (CSPSCA). They referred to social anxiety disorder (SAD) as the first stage of social phobia which starts from the children's early years until they reach the adolescent stage. They indicated that both of them suffer from emotional distress, impaired friendships and social interactions. The above mentioned symptoms play a great role on the part of their school and college academic under-achievement. Both of them are considered to be at risk of serious major depression, anxiety and disorders in later age. The study also pinpointed the fact that passive-aggressive children have difficulties in attending schools or university and addict to both alcohol and tobacco with feelings of shyness and embarrassment. On the contrary, children and adolescents can be provided for with secured plans of prevention, detection and treatment which are considered to be of great importance to protect them from negative consequences and help them to achieve and function well, not only in their school and academic studies but also in their general lives as well (Demir et al, 2013).

This study applied different social anxiety measures; including the SAS-A, SPIN, FNES, and SAIS to Saudi Arabian adolescents. In line with previous studies, the present study shows that individuals of age 16 report less social phobia than those of age 17. This was also found in an American study (La Greca, 1998). The outcome of this study can be applied to different communities and clinical samples in the Arab-speaking world.

The present study shows that girls were less socially phobic than the boys on the FNE subscale. This observation contrasts with the findings of La Greca and López's (1998). It supports the fact that differences in the level of social anxiety occur not only in the FNE subscale but also in the SAD-New subscale and in the Total SAS-A scale. On the other hand, the present study found similar results to US studies on grade effects or interactions between sex and age using the SAS-A (Ginsburg, La Greca & Silverman, 1998; La Greca & López, 1998).

While studies have been conducted on SP in children and young people, fewer studies have been conducted on the prevalence of SP. In the case of Saudi Arabia, this study found that 34.3% of the adolescent participants (N=145) are considered to be suffering from social phobia. Studies conducted in Saudi Arabia report that phobic anxiety is the most frequent mental health-related problem among Saudi adolescents, with a rate of around 17.3% (Mahfouz et al., 2009). Another study, of 545 Saudi female students, found that 16.4% had symptoms of social anxiety (Al Gelban, 2009). In Saudi Arabia or any other Arab countries, no epidemiological studies have been conducted related to the SP among the children. Thus, the present study helps to fill the gap in research on Saudi Arabia.

Following strict cultural customs, Saudi studies with out-patients are comprised mainly of men. For this reason, much less is known about the prevalence of SP in Saudi women. Researchers have posited numerous reasons pertaining to culture for this discrepancy (Bassiony, 2005). Saudi males have more opportunities to interact in social situations because the workforce is comprised mainly of males. They tend to face both more social pressures and opportunities than Saudi women. As women need to be accompanied by a male relative when visiting a health service centre, it is more convenient for males only to access such services. Moreover, women need to explain to their male relatives the nature of their health-related problems and convince them of the need to visit health services. This stigma extends to Saudi women accessing psychological services. The result is that the privacy and confidentiality of Saudi females is compromised.

The findings indicate Saudi adolescents suffer from social phobia in different degree in different countries. Some studies found that the average rate of social phobia is 12.3% while SP in Saudi Arabia ranges from 2% to 16% (Katzelnick, 2001; Kessler et al. 2005; Stein, 2005) which is close to the internally recognised rate. In the United Arab Emirates, the rate is 7.8%, in Egypt it is 13% (Al-Hinai et al., 2007) and in Jordan 9.1% (Bani Mustafa et al., 2014). In Oman, the prevalence rate is 54% (Al-Hinai et al., 2007). It is likely that high school students suffer from social anxiety because in this developmental stage, they suffer from inner ego conflicts which give rise to their anxiety. They suffer from a tension created by their social and cultural parameters and their urge for more independence (Erickson, 1968).

In the present study, it was found that the Muslims suffer from a high level of social anxiety because of their restrained social and cultural paradigms (Kessler et al., 2005). This can cause different mental disorders which can prevent them from achieving their educational and professional goals. The next section discusses social anxiety in Arabic adolescents.

10.6 Sex and Social Status Differences among Adolescents

Sex-based studies of social anxiety invariably show consistent outcomes (Erath et al., 2007; Eren, 1997; Inderbitzen et al., 1992; Sertelin, 2007; Teachman & Allen, 2007). Male and female adolescents are equally vulnerable to social anxiety in a given social structure. However, different social and cultural phenomena exist based on different religions, ethnicities, histories, geopolitics etc. Researchers need to take these diversifications into account when understanding the impacts of social phobia on male and female adolescents (Fukuyama & Greenfield, 1983; Furnham & Henderson, 1981; Furnham, 1979; Stein & Bailey, 1973, cited in Tegin, 1990).

10.7 Social Anxiety in Arab Adolescents

Above, it was established that adolescents undergo different physical and mental changes throughout their development. In puberty, adolescents undergo shifts in their cognitive, emotional and social functioning which can give rise to social phobia (Bruch,

1989). Adolescents tend to be psychologically susceptible to how they are evaluated by others and this plays a vital role in determining their level of self-consciousness (Peleg, 2010). When adolescents discover a gap between what people think of them and what they want in reality, they begin to suffer from social phobia. A phobia may develop depending on whether individuals of their age approve or mock them (Hudson & Rapee, 2000). This is the period when adolescents begin to identify their place in the existing social system (e.g., Trower & Gilbert, 1989); anything negative may create anxiety in their lives. Broadly, it can be assumed that social phobia begins to appear when adolescents want to join the existing hierarchical system of power (Hudson & Rapee, 2000) and when they want to secure a place among the existing hegemonic forces or agents in their society (Ohman, 1986).

According to the thesis hypothesis, female adolescents would score higher on social anxiety. However, the actual findings show otherwise; boys are more socially anxious than girls. Zeidner (1989) contends that female adolescents have lower levels of social anxiety, contrary to Stein and Matsunaga (2001). The latter corroborates other reports regarding the anxiety scores of male adolescents (e.g., Dellosso et al., 2002; Hidalgo, Barnett & Davidson, 2001; Lepine & Pelissolo, 2000; Peleg, 2002). The obvious reason behind this is the social and cultural parameters of Arabic countries in which males are expected to be the representative of the society by functioning properly and authentically. This observation is also clinically true (Stein & Matsunaga, 2001).

Another reason for this higher score of social anxiety among male adolescents may be that as part of the collectivist, Arab society, males have to be more competitive and supportive and so they suffer from more anxiety.

Studies of Western adolescents differ from their Eastern counterparts regarding social phobia. Western individuals are largely free from many of the parameters that Arab adolescents are subject to. They are suppressed by social and cultural norms. They tend to be in a perpetual race to win as their forefathers did which usually induces anxiety in them. It is truer for those living on the periphery of the society. Even in school, they are oppressed with the realisation that they have to secure good jobs after completing their studies which creates further anxiety for them (e.g., Peleg-Popko et al.,

2003; Peleg, 2009). Further study should be conducted comparing the social anxiety levels in Western and Eastern cultures, and between majority and minority groups. Socio-economic considerations related to social anxiety will be discussed in next section.

10.8 Socio-economic Considerations

Socio-economic aspects are linked with social phobia. It is found that the adolescents and adults on the periphery of society can be affected more by social phobia than those in the mainstream (Canino et al., 1987; Rosella & Albrecht, 1993; Schneier et al., 1992). This is because socially affluent parents are able to spend a lot of resources to enable their children to cope with different social activities. In these social activities, adolescents get the chance to accommodate themselves with different social situations. This enhances their ability to reduce their social anxieties.

10.9 Negative Evaluation and Social Anxiety

One objective of this study was to compare the fear of evaluation in different age groups. Adolescents aged 15-17 years reported higher levels of 'fear of negative evaluation' than those aged 18-19 years. That is, mid-adolescents suffer from 'fear of evaluation by others' more than late adolescents.

It is clear that fear in social situations is mainly motivated by the desire to avoid embarrassment. Adolescents with SP seem to fear disregard and humiliation. When the individual interprets the situation negatively, regarding social information, this can give rise to fear in the individual affected by SP (Hirsch, Clark & Mathews, 2006). In reality, they are rarely treated negatively. They rate their public speaking as being of poor quality (Abbott & Rapee, 2004). Cox, Borger and Enns (1999) note that negative evaluation is a widely used measurement of change during Cognitive-Behavioural Theory (CBT).

In comparison to other disorders and non-clinical controls, individuals with SP report more negative results, which come from interpreting social events more negatively (Lusia Stopa & Clark, 2000). A study of social scenarios interpretation found

that SP individuals tend to interpret the social scenarios they face more negatively (Voncken, Bögels & Peeters, 2007). However, this study had imbalanced experimental and control groups in terms of sample size (the British sample of smaller sample size than the Saudi sample); therefore the results should be interpreted with caution.

A study has been conducted on the connection between SP and attentional bias to socially threatening words in order to determine concurrent depressive disorder effects (Musa, Lépine, Clark, Mansell & Ehlers, 2003). The study found that individuals with SP tend to be attentive to socially threatening words. In contrast, patients with depressive disorder and SP preferred to avoid the words. A connection with intentional bias to physical threat and SP might exists which underscores the importance of studying further attentional bias and comorbidity.

Reavis (2005) found that young people aged 9 to 13 years with severe SP had lower levels of self-perceived social acceptability among their peers and a higher rate of cognitive errors than their counterparts without SP. In a similar study, of children aged 10 to 11 years with severe SP, by Cartwright-Hatton, Tschernitz and Gomersall (2005), the opposite relationship with SP and self-performance was found: there were more possibilities of expressing thoughts of negative self-evaluation to peers. SP children tended to pay more attention to their nervous dispositions. Such findings have been used to inform CBT and related psychological interventions for SP.

10.10 Culture and Social Anxiety

One objective of this study was to compare social anxiety between Saudi Arabia as a so-called collectivistic sociality and the UK as a so-called individualistic society. The Saudi adolescents reported more social phobia in total score as measured by SPIN than the UK adolescents. In terms of SPIN subscales, the Saudi adolescents also reported higher scores on ‘fear’ and ‘avoidance’ but not for ‘authority’. In addition to results from SPIN, no differences were found between Saudi and UK adolescents in terms of SAS-A total scores and its subscale SAD-New. However, UK adolescents reported more fear of negative evaluation than Saudi adolescents, whereas Saudi participants scored higher on the SAD-General. The only study that compared Saudi

and British people was by Al-Khodair and Freeman (1997). Comparing samples from Scotland and Saudi Arabia, the study found significant differences between the two groups.

The course of the disorder and the assessment age differed. The Saudi sample had a younger age and shorter duration of the illness, while the Scottish sample had higher anticipatory fears. Saudis felt more comfortable with younger aged people whereas no such effect was observed in the Scottish sample. The Scottish group reported more panic attacks, a history of depression, abusing alcohol, usage of psychiatric drugs and agoraphobia. This is evidence that cultural difference can affect social phobias. The cultural effects are based on differences such as treatment age, illness duration, co-morbid panic disorder, alcohol problems, depression and situations related to society. In order to get clear picture on social anxiety among adolescents in collectivistic countries, we need to shed light on the reasons why adolescents possibly score higher on social anxiety in collectivist cultures. It has been argued that this is due to the stricter cultural constraints.

The study also cites other evidence regarding the presence of higher anxiety scores in other collectivist cultures such as Latin American countries. These results regarding social anxiety and social norms in collectivist societies have been replicated by others (Heinrichs et al., 2006; Hong et al., 2007; Kleinknecht et al., 1997; Okazaki, 2002). In the three country groups discussed here, the East Asian countries show more social anxiety than the European and the Latin Asian countries. Latin America and East Asia share similar cultural patterns but their cultural values regarding children and adolescents differ. In the former countries, people socialise through talking and mixing with each other which decreases their social anxiety, while the latter promote submissiveness in their children which may lead to social phobia (Ramirez-Esparza et al., 2008).

In some East Asian countries, such as South Korea and Japan, group harmony is practised by showing respect to each other (Kleinknecht et al., 1997). This promotes interpersonal relationships by showing due respect to one another and thus increases their self- consciousness. When people become very concerned about themselves,

anxiety begins to mount. In Latin American countries, people also promote respect towards one another but they do so without generating self-centeredness and accordingly suffer from less social anxiety. These findings for East Asian and Latin American countries are supported by Furmark (2002) and Wittchen et al. (2003).

Individualistic and collectivist countries have also been found to differ in terms of social anxiety-related impairments, with individualistic countries suffering more on this measure than collectivist countries (Rapee et al., 2004). The reason behind this is that the people in collectivist countries are more prepared to accept cultural constraints as part of their growing up.

In terms of the impact of the culture on social anxiety in gender-specific interaction, it needs to highlight how cultural expectations and sex-based learning history are related to social phobia. This underscores the need for physicians to consider the impacts of cultural influence on the different achievement scales and how it can give rise to social phobia. Treatment of SP should concentrate on the individual's potential and expectation levels.

Studies show that the collectivist Asian culture is more vulnerable to social anxieties which ultimately turn into social phobia (Norasakkunkit & Kalick, 2002; Okazaki, 1997). Saudi Arabia is traditionally known as a collectivist country with much importance placed on interdependence. In this kind of cultural paradigm, higher levels of social anxiety on the SAS-A level and subscale score level have been observed. A study on adolescents from Spain and the USA shows that Spanish adolescents have higher social anxiety scores than US adolescents (Olivares et al., 2005). On the other hand, Saudi Arabian adolescents can be expected to have higher anxiety scores than Spanish and US adolescents because of its traditional values and collectivist phenomena. It should however be noted that the level of social anxiety of Saudi Arabians is lower than that of the Chinese.

Other research comparing adolescents in Saudi Arabia, China, the USA and the UK in terms of SAS-A scores made an unexpected observation (La Greca, 1999; Olivares et al., 2005; Zhou et al. 2008). It was found that British adolescents have more social anxiety than those of Saudi Arabia. Other methodological problems encountered

when comparing adolescents from different countries include lack of measurement equivalence, true differences in prevalence, cross-cultural limitations and limited validity or precision of the diagnostic criteria which can prevent homogenous assessment (Lewis-Ferna´ndez et al., 2010).

In terms of the relationship between social anxiety and individualism–collectivism, Vriends et al. (2013) found that TKS might not only be a Japanese culture-bound disorder, but also be present in other collectivist cultures or individuals. The TKS values of the Indonesian sample were higher compared to those of the Swiss sample but were of similar value to those of the Japanese samples. In Indonesia, TKS was shown to be clinically relevant, as it was associated with self-reported *DSM-IV* social phobia (even when controlling for social anxiety) and it was associated with the wish for professional help to deal with social fears. However, in contrast, in Switzerland TKS was not associated with self-reported *DSM-IV* social phobia and it was not associated with the wish for professional help to deal with social fears, indicating that TKS is less clinically relevant in Switzerland, if relevant at all.

According to the model of Vriends et al. (2013), TKS symptoms in Indonesia and Switzerland are more often present in individuals with a more interdependent and a less independent self-construal compared to an individual with a more independent and less interdependent self-construal. The model suggests that in Indonesia this is more often the case in individuals, and thus more cases with TKS can be found there than in Switzerland. However, in Switzerland some cases with TKS might also be found. They found that interdependent self-construal was positively associated with TKS and social anxiety, and that an independent self-construal was negatively associated with TKS and social anxiety. Interdependent self-construal mediated the association between cultural background and TKS and social anxiety, that is, a more interdependent self-construal, associated with an Indonesian cultural background, was associated with TKS and social anxiety. Thus, TKS might not be a Japanese culture-bound syndrome, but an interdependent-self-construal-bound-syndrome. Those individuals who construe themselves as

interdependent with others have a greater chance to experience social fears that rely on interdependence, such as being afraid of embarrassing others with one's own behaviour.

With the aim of finding measures for alleviating social fears, Vriendo, Novisnti and Hadiyona (2013) investigated *taijin kyofusho* and social anxiety in Indonesia and Switzerland. The investigation focused on the clinical relevance of TKS and professional help for dealing with fears of social anxiety. Controlling for general social anxiety, the study also examined the relationship between TKS and social phobia symptoms as defined in the *DSM-IV*. It examined whether self-construal mediates the relationship between TKS and cultural background (Swiss versus Indonesian) and how the independent and interdependent self-construal are related. Based on a sample of 311 Indonesian and 349 Swiss university students, the study used the Liebwitz Social Anxiety Scale, the Taijin Kyofusho Scale (TKS), the Self-construal Scale, and Self-reported Social phobia. The results indicated different outcomes for the different cultures. Vriendo et al. argue that the TKS scale might be related, not only to the Japanese culture-bound disorder, but also to other cultures.

10.11 Emotions in Adolescents

Emotion in adolescents can play an important role in terms of identifying individuals with and without social interaction anxiety. Kashdan and Farmer (2014) argue that indifference to emotions in socially phobic people is a sign of their psychological disorder. Reaction to emotions can therefore be used to distinguish between people with and without psychological disorders. The social phobic has different emotional mechanisms which affect their ways of assimilating different emotions in the social and cultural context (Kashdan et al., 2011; Morrison & Heimberg, 2013). People with SAD have broad positivity deficits (Kashdan et al., 2011).

10.12 Differences in Social Anxiety between Saudi, British, the USA, Chinese, Spanish and Turkish Adolescents

In order to conduct a comparative analysis of social anxiety between Saudi Arabian and British samples, more countries such as China, Spain, the USA and Turkey were compared in terms of scores of SAS-A scale. The remaining study analyses pertained to differences on levels of social anxiety between adolescents from Saudi Arabia, the United Kingdom, the USA, China, Spain and Turkey. Means and standard deviations for the SAS-A total and subscales obtained from adolescents in this study were compared to those reported by La Greca (1999) in the USA, Zhou et al. (2008) in China, Olivares et al. (2005) in Spain and Memik et al. (2010) in Turkey (see table 8.24).

Even though no inferential statistics were conducted between those countries based on the available research conducted in these countries, the results expected that: (a) Saudi adolescents scored less than Chinese adolescents on the FNE, SAD-New, and SAD-General subscales and on the SAS-A total; (b) Saudi adolescents scored significantly higher than British adolescents on the FNE, SAD-New, SAD-General subscales and on the SAS-A total; (c) Saudi adolescents scored less than Chinese adolescents on the FNE, SAD-New and SAD-General subscales and on the SAS-A total; (d) Saudi adolescents scored less than Chinese adolescents on the FNE, SAD-New, and SAD-General subscales and on the SAS-A total; (e) Saudi adolescents scored less than Chinese adolescents on the FNE, SAD-New, and SAD-General subscales and on the SAS-A total; (f) Saudi adolescents scored less than Spanish adolescents on the FNE and on the SAS-A total but were higher on SAD-New and (g) Saudi adolescents scored less than Turkish adolescents on the FNE subscale and on the SAS-A total but were higher on SAD-New and SAD-General.

According to Pilling et al. (2013), it can be estimated that the children and young children had been used for diagnosis as well as explaining the estimates in prevalence in the UK. British diagnosis rates, in this study, were found to be higher in

boys when compared to girls and increased slightly when compared to age. In addition, anxiety disorders in the UK societies begin in childhood and adolescence.

10.13 Discussion of the Results of SEM Models

One of the objectives of this study was to propose and validate a model that test the relationships between social anxiety, social phobia inventory, social interaction, cognitive factors, cultural tendency, anxiety and quality of life. The first stage of validating the model was completed through assessment for unidimensionality, validity and reliability as reported in section 7.3.3. The CFA indicated that the indicators sorted themselves into several factors (i.e., social interaction anxiety sorted itself into 4 factors; fear of negative evaluation, Social Anxiety Scale for Adolescents (generalised Social Avoidance and Distress), World Health Organization's Quality of Life Questionnaire (Physical health) sorted themselves into 2 factors each). The proposed framework was evaluated through CFA, thus a modified model was validated and was deemed a good fit for the data and thus accepted.

Direct effects between independent variables and dependent variables

Cognitive factors, Social Interaction and Social Anxiety relationship

The result finds that there is a significant positive correlation between cognitive factors, social interaction and social anxiety. Individuals with social anxiety usually report greater negative self-evaluation (Clark & Wells, 1995). Similarly, the condition of individuals with social anxiety is usually exacerbated by the extent to which they believe their anxiety is visible to others. They tend to underestimate the extent to which they are interested in and agreeable to others (Voncken, Alden & Bögels, 2006). Perceptions of their negative performance tend to persist over time (Wallace & Alden, 1997). Three cognitions that characterise patients regarded as having social anxiety were identified by (Wells, Stopa & Clark, 2000), namely: fear of negative evaluation by others; fear of revealing signs of anxiety or performance failure; and negative self-evaluation.

Schmertz et al. (2012) considered their study as the first study showing that mindfulness was concerned with the person's symptoms of social phobia which was

found to be a result of their perceived probability and cost of a negative social outcome. The results were, moreover, acquainted firmly with cognitive theories of social anxiety and considered to be the main factors for the participants' mental disorders. This might be because people with SAD cannot identify their own emotions, unlike their healthy counterparts, and they also cannot describe them, like those with generalised anxiety disorder (Turk, Heimberg, Luterek, Mennin & Fresco, 2005).

In terms of social interaction, according to Kashdan and Farmer (2014), social interactions are experienced as stressful to the socially phobic. They therefore struggle to determine the primal emotions of happiness and sadness. They live in their own world, paying little attention to the world around them, while their particular interpretations are constantly opposed by 'reality'. Yanos et al. (2001) conducted a study on a sample of 104 patients diagnosed with severe mental illness. The result indicated that the positive and supportive social interaction had a great impact on the quality of the patents lives (QoL), their direct contact with their society and families in various leisure activities, and also work disciplines. The study concluded that patients with more symptomatic mental disorders reflected fewer and negative supportive interaction towards the environment around them.

People with social phobia struggle to adapt themselves to social situations as they are afraid of social failure (Schlenker & Leary, 1982). Their cognitions compel them to avoid social situations (Clark & Wells, 1995). They begin to anticipate upcoming situations and over-emphasise the anxiety-related factors, suggesting biases in cognitive appraisal (Goldin, Manber-Ball, Werner, Heimberg & Gross, 2009). They are not able to discriminate between different unpleasant states and try to avoid them. They are unable to use cognitive reappraisal as effectively as their healthy counterparts. (Werner, Goldin, Ball, Heimberg & Gross, 2011).

In addition, they tend consider positive emotions as threatening (Turk et al., 2005). Thus, people suffering from social phobia develop the tendency to cancel both positive and negative emotional paradigms, using cognitive mechanisms to avoid social situations. These coping methods are ineffective (e.g., Farmer & Kashdan, 2012;

Kashdan, Morina & Priebe, 2009; Kashdan & Steger, 2006) because the individual rejects the ways of perceiving and responding to emotions, both positive and negative.

The study of Tianin (2011) reflected much hopes and optimism for individual with social anxiety. The results showed that online social interaction played a great role in caring people with higher social anxiety and made them interactively motivated when they made new friends and made them feel more comfortable when they interacted with others. On the contrary, people with weak social skills were found to have fewer friends online with less development of intimacy and low scores on a social anxiety scale. Pilling et al. (2013) concluded that both verbal and non-verbal social skills which involve treatments in eye-contact as well as other facial features, starting a conversation and positive feedback.

The current study was partly aimed to investigate the relationships between social interaction, cognitive aspect, culture tendency, anxiety, social anxiety and quality of life. The overall fit of the SAS-A model was acceptable. In terms of direct effects between study variables, significant positive correlation between cognitive factors and social anxiety was found. There was a positive relationship between culture tendency, social anxiety and social phobia inventory. Positive relationship was found between anxiety and social anxiety. Mediation effects of SAS-A and SPIN were investigated by reporting direct effects, indirect effects and total effects. Results indicated that social anxiety significantly mediated the relationships between subjective anxiety, positive individualism, cognitive and environmental health. However, there was no mediation through the SPIN model. In terms of moderation effects of demographic characteristic, it can be concluded that significant differences between the normal and clinical samples were found on correlation between social anxiety on the SAS-A model. Moreover, sex significantly moderates relationships between all modelled variables. For the SPIN model, there were significant differences on correlation between social phobia inventory and positive relatedness.

10.14 **Summary**

This chapter has discussed the findings of this study, showing the various ways in which the functioning of adolescents with social phobia in different social institutions is impaired because of their lack of interaction. This thesis found that social anxiety severely affects the quality of life of a person and leads to instability in both physical and psychological states. The study shows that those with SP and those without it differ in terms of their emotional, general health, vitality, social functioning and mental health scores. The present study also shows higher scores of social anxiety among boys on the SAD–New subscale only, whereas no difference was found between boys and girls on the SAS-A total score, the SAD-General or the FNE. This may be the case because socio-cultural conventions usually imposes more emphasis on social functioning on boys, so they may become very vulnerable to the expectation and begin to suffer from social phobia. Results of this thesis support the literature suggesting that there are social and cultural parameters of Arab countries in which males are expected to be the representative of the society by functioning more properly and authentically. In terms of cross cultural findings, the Saudi adolescents reported more social phobia in total score as measured by SPIN than UK adolescents did. In terms of SPIN subscales, the Saudi adolescents also reported higher scores for the fear and avoidance but not for authority. No differences were found between these two groups in terms of SAS-A total scores and its subscale SAD-New. However, UK adolescents reported more fear of negative evaluation than Saudi adolescents did, whereas Saudi participants reported higher levels on the SAD-General. The next chapter concludes this study.

CHAPTER ELEVEN

11 CONCLUSION AND RECOMMENDATIONS

11.1 Overview

This thesis proposed and validated a model that explained how social anxiety affects quality of life in adolescents in Saudi Arabia. This chapter presents the conclusions and recommendations of this study. First, the research questions are re-visited, followed by a discussion of the contribution that this study makes to knowledge about social anxiety and quality of life in adolescents. The research implications for practitioners and policy makers are then explored. Finally, the limitations of this research are discussed, followed by recommendations for future research.

11.2 Research Questions Re-visited

Saudi Arabia is a newly established country that is currently going through a period of rapid development. Thus, research there is still relatively limited, and there is a lack of culturally appropriate instruments for research purposes. It is highly recommended that researchers distinguish carefully between developing a new instrument and using existing instruments, depending on their established psychometric properties. The latter is often adopted because it is more practical and resource-effective, and because it allows comparison with findings from other countries. In many cases, instruments are translated from one language to another based on assumptions of cultural transferability.

This process does not, however, ensure that the questionnaire items effectively represent the measured constructs in the targeted culture. Psychological constructs normally vary between cultures; thus measures translated from one language to another might not represent the targeted culture properly because important aspects might be overlooked. This does not necessarily invalidate the utilisation of measures across different cultures. It is, however, important that the psychometric properties of the indigenous measures are taken into account (Allwood, 2011; Cheung & Leung, 1998).

The current study used existing measures. These were translated, following the translation and back-translation guidelines, to capture as many measurable aspects in the targeted culture as possible. Maintaining the original version of the measurements was important in order to enable comparisons with previous research.

The present study used self-report questionnaires to investigate social anxiety and quality of life among Saudi adolescents. Only self-report measures were used. It was important that these questionnaires were compatible with *DSM-IV* criteria. After the researcher had adapted eight existing questionnaires of social anxiety, and translated them into Arabic for use with an Arabic-speaking sample, many of the hospital staff expressed their wish to use them as additional diagnostic/assessment tool in their everyday clinical practice.

All eight questionnaires had previously been widely used and translated into different languages, though not all to Arabic. Scales which have been evaluated in developing countries and which have been translated into various languages are particularly useful for the general population, due to their low cost. However, such instruments need further psychometric investigation if they are to be used for both research and clinical purposes such as monitoring symptoms. Overall, the eight instruments used in this study were found to be of satisfactory psychometric suitability, as shown in the results chapters.

As discussed in detail in the methodology chapter, this study used two scales to measure social interaction. The first was the Social Interaction Anxiety Scale (SIAS) while the second, called the Social Interaction (SI) questionnaire, was compiled from different sources by the researcher. It was necessary to develop a new social interaction instrument for the Saudi cultural context because of the lack of available tools with appropriate psychometric properties and because the constructs of existing instruments were not culturally applicable. Preliminary evaluation of the new instruments was encouraging in that they exhibited good reliability, as assessed by Cronbach's alpha values, and satisfactory internal validity. However, more research is needed to refine them and to further establish their validity and reliability by exploring their factorial

structure in more depth in larger samples, both clinical and non-clinical, and to contrast their properties with those of existing tools.

11.3 Cultural Issues

Saudi society is collectively characterised by a number of distinct features. For instance, there is a tendency to attribute events involving close family relationships to external rather than internal causes, that is, external attribution is widely preferred in this society. In addition, directive parental child-rearing practices are common, following the collectivist nature of Saudi culture as opposed to more individualist society in which family relationships are more distant. It is clear that using external attributions is strongly consistent with collectivism since it implies that one is not fully responsible for one's own behaviour and that there are 'uncontrolled' causes that contribute to it (Berry, Phinney, Sam & Vedder, 2006).

Mental health disorders in Saudi Arabia might be different from those in more individualistic societies in terms of perceptions and attitudes towards mental health. Concepts such as 'devil eye' or 'spirit possession' are often invoked as explanations in the Saudi context when attempting to make sense of psychological problems (Alanazi, 2001). Thus, religious and traditional therapies are usually the first approach for treatment while mental health treatment services remain a last resort (Dwairy, 1998; Lin & Church, 2004).

The Saudi mental health system differs from more developed countries in its strategies for dealing with phobic and anxious patients. Qureshi, Al-Habeeb and Keenig (2013) report that the Ministry of Health in Saudi Arabia is currently researching and planning through mapping schemes to develop community mental health systems (CMHSs) and implement more progressive care and advanced services in order to catch up with those in developed countries. Studies have been conducted, especially in the last four years, to examine the strategies adopted to improve and upgrade the Saudi mental health system and its direct and indirect links with international mental health systems (WHO, 2009). They found that Saudi Arabia has achieved considerable improvement

and progress in its health systems, especially in those related intrinsically or extrinsically to mental health.

While mental health indoor units have been upgraded, the studies indicated that Saudi Arabia has an ongoing need for more mental health care services in the community in order to catch up with international trends within developed countries. To this end, Saudi Arabia urgently needs its own national workforce which is well-trained in mental health care, both in the private and the public sectors.

Al-Khathami, Mangoud, Rahim and AbuMadini (2011) found that most of the traditional mental health training programmes in Saudi Arabia are limited to very brief theoretical demonstrations rather than clinical demonstrations. Accordingly, they were seen as short-term workshops, and they tend to have an adverse effect on the knowledge and attitudes of psychologists, psychiatrists and the physicians, hindering the development of treatments for mental disorders. Much negligence has been discovered by experienced doctors in the field of mental health training, especially within the area of practical clinical performance.

This attitude can be seen towards most psychological disorders in Saudi Arabia, including social anxiety, which has been shown to be subject to cultural features that may impact upon its treatment. In the Saudi context, societal norms support strong relationships and obedience to authority. Accordingly, social-anxiety-related behaviours such as avoidance are generally considered to be socially 'appropriate' in Saudi society. For instance, shyness is widely encouraged, especially among young girls – shyness being a common sign that one is 'good' (Dwairy, 1998; Nobles & Sciarra, 2000).

In addition to the relationship between parenting style and social anxiety, there may also be a relationship between parental stress and social anxiety. Although this has not been investigated in this thesis, it is possible that a genetic link exists between parental stress and social anxiety in adolescent offspring. Further study may provide support for the role of heritability in the development of social anxiety. Such a biological perspective will need to be considered in relation to a socio-cultural perspective because individuals from

collectivistic societies usually consider their parents as role models; therefore the mental health of parents is likely to influence their children through the processes of socialisation (Triandis & Suh, 2002).

11.4 Contribution to Knowledge

The relationship between social anxiety and quality of life in adolescents was explored for the first time in Arab countries. Derived mainly from Western countries, variables such as cognitive ability, social interaction, and individualism versus collectivism were applied in the Saudi context. This study is the first to initiate investigation of the relationship between social anxiety and the quality of life of Saudi adolescents. It concentrated on adolescents in Arab countries who suffer from social anxiety, with a view to exploring how the collectivist culture influences the nature of social anxiety in these adolescents. This research paves the way for research on which particular psychological symptoms have the greatest effect on the quality of life.

Socio-economic status can be understood as the position of individuals along various dimensions, including economic, political and cultural (e.g., income, educational achievement, occupational prestige). Several studies have found that low socio-economic status is correlated with child psychopathology. In other words, a high level of socio-economic status predicts lower rates of mental disorder because of associated protective factors (Patel, Knapp, Henderson & Baldwin, 2002; Wohlfarth, Winkel, Ybema & van den Brink, 2001). In this study, adolescent psychopathology was found to differ according to family socio-economic level. Nevertheless, the literature on socio-economic factors and adolescent mental health problems suggests that these mechanisms should be investigated in more depth for adolescents with social anxiety.

11.5 Implications

The objectives of research are to identify problems and to initiate solutions. This applies to the findings of this study, which has potential clinical implications at three levels: prevention, treatment, and clinical training. The following sections discuss

practice and service implications, research implications, and educational and clinical implications.

11.5.1 Practice and Service Implications

In terms of providing prevention services that target high-risk populations, this study identified that adolescents exposed to psychological disorders are at particular risk of developing social anxiety and other related mental health disorders. The risk is compounded by lack of early diagnosis of the disorder. It is therefore important for parents, teachers, clinical psychologists, social workers, GPs and others in frontline contact with adolescents to recognise these factors and identify vulnerable adolescents.

Moreover, it has been found that primary prevention through the modification of parenting styles may decrease the probability of developing clinical symptoms (Landry, Smith, & Swank, 2006; Landry, Smith, Swank, & Guttentag, 2008). Because the influence of parental style begins at a young age, early intervention is important. Professional parenting programmes can enable modelling of sound parental practices and outstanding education (Barlow & Start, 2007; Goodson, 2007). Such programmes can be conducted by school-based interventions to reduce the impact of any aggressive or abusive behaviour on children and to enhance self-esteem among children who are at risk (Cunningham, Bremner & Boyle, 1995; Weissberg, Kumpfer & Seligman, 2003).

For those adolescents who have already developed a social anxiety disorder, psychological interventions should address factors relating to social anxiety if they are to be effective. Providing affected adolescents with cognitive-behavioural therapy (CBT) skills in schools could arguably reduce cognitive bias and fears of negative evaluation by others. The effectiveness of CBT skills has been indicated in some treatment studies of social anxiety, specifically for children and young people with these cognitive distortions (Spence et al., 2000). It is also recommended that more attention should be paid by clinicians to the psycho-social factors that maybe be involved in maintaining or developing social anxiety. Another recommendation is that the treatment plan for the disorder should take both biological and psycho-social aspects into account (Beidel, Turner & Association, 2007; Geist, Grdisa & Otley, 2003).

In order for a prevention approach to be effective, it is important that the professionals interacting with adolescents are skilled in understanding the developmental and psychological attributes of this group. In particular, teachers should receive extensive training in the following areas: detecting adolescents who are at risk of mental health disorders; managing less complex cases; and referring adolescents with more severe needs to the appropriate services. These points should be incorporated into good-practice guidelines. Aside from teacher training, well-designed workshops for parents might increase their awareness of mental health conditions in general and of social anxiety in particular, thereby helping to reduce the number of adolescents being referred to specialist mental health services.

In line with cultural protocols for treating mental health conditions, it should be noted that service protocols developed originally in individualist societies may also be useful in collectivist societies. With some adaptation and adjustment to take the characteristics of the new cultures into account, these protocols could enhance and improve knowledge in collectivist societies.

11.5.2 Research Implications

Investigating a mental health condition like social anxiety requires multi-stage recruitment, accumulation of data, development of expertise, and establishment of links with schools and specialist mental health services. Because social anxiety is often comorbid with other disorders such as anxiety disorders and depression, it can be rather difficult to study (APA, 2000; van Ameringen, Mancini, Styan, & Donison, 1991). Thus, research into this disorder should ideally be conducted in academic institutions with well-established, on-going programmes of research dedicated to this field.

It was argued in this thesis that clinical interventions for adolescents need to include a psycho-education component for parents and other caregivers, to teach best parenting practices. It follows that interventions may need to extend to addressing parental mental health problems, in addition to those of adolescents, since there can be correlations between the mental health of parents and that of their children (Coren & Barlow, 2001).

The findings of this thesis suggest several avenues for future research. Firstly, it is imperative to validate the scales translated into Arabic, by exploring the cross-cultural differences and similarities, before using them routinely in mental health services provision and research. This should be done at both item and total score levels. Another important study area would be to investigate whether the tendency to exaggerate among Saudi and/or Arab individuals might increase vulnerability to social anxiety within these communities, and to examine how common this tendency is in collectivistic societies, by comparing collectivist and individualist societies on this measure, as this thesis did to a small extent.

11.5.3 Educational and Clinical Implications

This thesis puts forward some important observations about social anxiety in Saudi adolescents. Educationists and other agents of socialisation should explain to students the precise impact of social anxiety on social interaction and quality of life, and they should work towards re-structuring the social system so as to lessen the social pressures and tensions that are imposed on adolescents. In order to be persuasive, teachers and other agents should ensure that knowledge about social anxiety is culturally sensitive, situated in the relevant context, and is not simply imported unaltered from the West. Furthermore, diagnosis and management of social anxiety should be tailored to the specific requirements of each individual, if they are to be effective. The current research was a step in this direction.

11.6 Interventions and Treatments

The clinical experts in this field should take necessary steps to lessen social phobia in an individual so that they can return to normal life. SP individuals must be put in a situation so that they can increase their quality of life (Olfson et al. 2000). Many studies show that certain treatments can lessen social phobia significantly (Antony et al., 1998; Hannah Delong & Pollack, 2008; Kessler et al., 1998; Safren et al., 1996; Schneier et al., 1994; Simon et al., 2002; Wittchen & Beloch, 1996). Therefore, it is observed that treatment of the social anxiety disorder may not bring substantial changes in patients who can cause low levels of QoL (Eng et al., 2005).

As social phobia refers to different types of disorders, it affects social and emotional health to a greater degree than somatic health. Individuals suffering from social phobia tend not to go to the physicians as those with somatic health issues do. It follows that studies of different role functioning can enhance different clinical interventions.

Studies on the effects of social phobia in countries other than Saudi Arabia have found that people suffering from social phobia have higher levels of perceived impairment and reduced quality of life than healthy people (Safren et al., 1997; Wittchen & Beloch, 1996). In the USA, Safren et al. (1997) examined 44 people who came for treatment at the Centre of Stress and Anxiety Disorders. It was found that participants considered themselves to have a low quality of life, severe phobia and functional impairment.

Interventions recommend that socially phobic adolescents must become involved with different social roles and develop substantial relationship with others. This interrelationship enhances their different skills for handling social activities, consequently attaining personal competence (Ingersoll, 1989). Individuals must define their own identity and gain their sense of independence in order to overcome social phobia. Interrelationship with others in society and involvement with different social institutions accelerates their understanding of self and helps them to demark their own sense of independence (Dusek, 1991; Ingersoll, 1989). Socialisation is very important for socially phobic individuals because they tend not to have many friends in the localities to which they belong. So they become very self-centered and erode their own potentialities for becoming involved with different social institutions. As a consequence, this kind of adolescent experiences a higher level of social anxiety (SAS-A). However, this is not a universal paradigm; the opposite may also happen. A study by La Greca and Lopez (1998) shows that socially anxious girls usually have the opposite result.

Kwan et al. (1997) emphasises the relationship between social connectivity and mental health. Chinese culture holds that ‘relational harmony’ is the precondition for sound mental health in a collectivist society. This observation is highlighted by the present study.

Literature cited in chapter two supports the view that authoritative parenting is not particularly harmful to the mental well-being of adolescents in Arab countries. However, if the parenting is connected with permissiveness, then it might be harmful. In Arab and Chinese societies, authoritative parenting is not considered to have completely negative results. The present study does not have enough data to validate this view fully.

In terms of mental health, male adolescents are in a better position than their female counterparts but concerning social connectivity, female adolescents are superior. In Arab societies, female adolescents tend to be connected in a deeper way with their families and this is responsible for their higher levels of social anxiety (Dwairy, 2004a; Ibrahim, 1991) and neuroticism (Khalik & Eysenck, 1983).

11.7 Limitations

11.7.1 Methodological strengths and limitations

Finally, to the best of this researcher's knowledge, no studies have so far investigated the correlation between social anxiety and quality of life in Saudi adolescents. Apart from this, a major strength of this thesis was its clinical sample selected from the two main hospitals for mental health in Dammam, a city in Saudi Arabia. These hospitals provide outstanding services for most psychological conditions and specialise in adolescent mental health. The sample size was compatible with that of clinical samples in similar previous studies, as reviewed earlier in this thesis.

Strength is that this study managed to recruit a clinical sample of adolescents with social anxiety, despite this disorder not being prevalent in the Saudi context. Data were collected adolescents with two types of anxiety disorders, in which psychiatric diagnoses were independently established using the *DSM-IV*. However it is a possible weakness that this study was conducted in Dammam; most of the participants came from villages around Dammam or the area of Al Badu, where not all citizens are literate. Thus, the results of this study can only be generalised to the general Saudi adolescent population with caution.

Most of the instruments were being used on Saudi or other Arab samples for the first time. Introducing a new instrument to this culture is a potential limitation of this study as no norms were available for these instruments. However, three previously validated measures in Arab society were employed as external criteria, in order to examine divergent or convergent validities. The findings confirm that the newly used scales were valid to be used in Saudi Arabia.

One might claim that this study is based on self-reports of adolescents which may or may not correspond to the views of other individuals, such as parents. However, it is believed that the information of adolescents is more consistent than that of parents (La Greca, 1998). In fact, self-reports are recommended for studying social phobia among adolescents (e.g., Peleg-Popko et al., 2003; Weller, Florian & Mikulincer, 1995). However, the findings could be enhanced by including the reports of teachers and parents, as well as behavioural observations of students with social anxiety during classes or when they are busy with their own activities. Further study should attempt to integrate findings about social anxiety derived from self-reports, observational measures, and physiological scores.

Obtaining information from structured interviews with adolescents with social anxiety can be difficult, due to interacting with non-acquaintances and their fear of being negatively evaluated. Thus, utilising self-report scales was a suitable optimal method for evaluating their social anxiety symptoms. However, it should be noted that utilising a structured or semi-structured interview technique might have gained richer or more detailed information.

Another limitation is that self-report scales like SAS-A cannot be utilised for diagnosis; rather this scale is frequently utilised in scanning or/and screening large samples, supporting diagnostic decisions, and evaluating the effectiveness of treatments (Albano et al., 1995).

A final limitation of this study is the fact that information about participants' socio-economic level, including parents' educational level and house ownership, was obtained by self-reports from the adolescents themselves; it is possible that collecting information from teachers or their families would lead to different or more accurate

information. Moreover, in relation to the literacy level of the participants, it might appear that poor schooling for women has affected their ability to complete the scales.

11.7.2 Nature of the sample

The limitation inherent in the choice of the sample has been mentioned above. The sample of this study was only Muslim adolescents in Saudi Arabia. Thus, the sample is not necessarily representative of the entire Saudi population, and the findings of this study may therefore not be generalisable to other types of people suffering from social anxiety disorder. Although it is difficult to conclude that the sample is truly representative of the target population, several indicators may help to evaluate the extent to which it did so. The two hospitals approached to participate in this study provide the main mental health services in the area; they receive most psychiatric referrals from general practitioners and state hospitals, as well as from other Saudi hospitals outside Dammam. Dammam, where these two hospitals are located, is the most important and the second largest city of Saudi Arabia, with residents originating from all parts of the country. Thus, the research sample included participants from different categories of Saudi society, such as from rural, urban and Bedouin groups, and from different socio-economic and educational strata. In addition, data was collected over a four-month period, which captured the clinical population using these services. It should be noted that this study is not based on the classes regarding age, sex or marital status.

11.7.3 Comorbid conditions

There were limitations in terms of working with individuals with social phobia. First, it was not possible to study social anxiety in those with bipolar disorder, psychotic disorders or drug dependence. It is also possible that comorbid disorders such as depression, panic disorder and generalized anxiety disorder influenced the findings of the current study, yet these were not controlled for in the present study. Finally, it was not possible to study the common parameters of mental disorders. It is not possible to assess students with social anxiety in the classroom because of the impossibility of controlling for variables such as fear and embarrassment in asking questions.

11.7.4 Academic achievement

Another area that this study has not focused on is academic achievement in students with social anxiety. Individuals suffering from social anxiety tend to be poor in communicating with others in school or in the classroom. Feeling alienated, they tend not to enjoy the school or classroom context at all and wish to escape. This tends to have negative implications for their academic attainment. Future study should consider any patterns in academic performance in students with anxiety disorders.

11.7.5 Translation

The method of translation used in this study might also constitute a weakness. Sousa and Rojjanasrirat (2011) argue that there is no clear agreement among researchers on how translation methods should be utilised or combined; there can be great differences in translator qualifications, and a lack of detailed information about translation, back-translation, validation and pre-testing of instruments. They therefore suggest that the procedure should consist of a comprehensive process that contains not only translation of a scale, but also thorough evaluation of its adaptation and cross-cultural validation. Translation, adaptation and validation of a scale for cross-cultural research require careful adoption of trusted methodological approaches in order to derive a reliable and valid scale of the concept being studied, which may be time-consuming (Sousa & Rojjanasrirat, 2011).

11.8 Future Directions

Following La Greca and Lopez (1998), this study is based on psychometric and normative data for the Social Anxiety Scale for Adolescents (SAS-A). Thus, it is difficult to generalise the findings to other age groups, races or ethnicities. Future study should include more diverse and heterogeneous samples, including from both urban and rural areas, so that the findings can generalise to a broader spectrum of people. The most remarkable finding of this study is that it is predominantly students in junior schools who suffer from social anxiety, as opposed to those in high school. It also found

that boys suffer more from social anxiety than do girls. It would be useful to explore these findings further in clinical studies to determine how widespread they are.

Psychometric assessment using the SAS-A can be a useful for finding out about social anxiety among adolescents (e.g., Ginsburg et al., 1998; La Greca & Lopez, 1998). However, one objective of this study was to show some of the limitations of the SAS-A. For more comprehensive and inclusive findings about social anxiety, this scale should be complemented by different methodologies such as the clinical interview, the diagnostic interview and behavioural observations, as well as collecting data from more diversified geographical locations and samples, as mentioned above. This allows generalisation of the findings and observations.

In order to identify aetiological factors, it would be useful to track high-risk individuals over a long period of time, using a longitudinal research design; it is highly recommended for future studies to approach social anxiety in relation to other relevant factors longitudinally. Because longitudinal study enables investigation of dynamic and complex relationships, knowledge of the disorder and aetiological factors could hereby be significantly enhanced. This thesis suggested that such longitudinal investigation of the development of social anxiety should address the relationship between cognitive variables, quality of life variables, and social anxiety, as well as related factors such as family states, other mental health conditions related to social anxiety, social skills deficits and social interaction. Various methods should be used within a longitudinal design, such as questionnaires and direct observation of child-rearing practices, to provide a variety of perspectives on social anxiety, and other symptoms and/or risk factors.

Considering additional types of social anxiety to those assessed in the current thesis would be useful for enhancing the quality of the research and informing clinical interventions. It would also be meaningful for future research to explore which social anxiety types are most prevalent in Saudi culture.

11.9 Final Conclusions

The high school students of Saudi Arabia reported high social anxiety scores. Several reasons were put forward. First, it was argued that the restrained social and cultural paradigms of the country are responsible for their higher scores for social phobia. The conflict between social expectations and reality is also responsible for this. In addition, some students take drugs which could exacerbate their vulnerability to social phobia.

It was found that those Saudi students with social phobia are more vulnerable to different functional disabilities than those without such mental disorders. There is a common tendency among students with social anxiety to dislike school. They often leave school early, without any substantial educational achievements (Kessler et al., 1998; Stein & Kean, 2000) which ultimately has a profound impact on their later life. It is therefore imperative that socially anxious students be provided with appropriate treatment and consultations so that they can improve their quality of life through integrating better with social institutions. If untreated, the impairment caused by social phobia could lead to poor academic and professional outcomes, as well as poor psychosocial outcomes.

The relationship between adolescents' experience of social anxiety and quality of life was investigated in this thesis, in terms of demographic factors such as age, sex, parent's education level and socio-economic status, and mediated by other variables such as cognitive factors, social interaction and culture. The quality of life was found to be negatively correlated with the age of adolescents with SP. This study also confirmed previous findings that exposure to social anxiety is a significant predictor of anxiety disorder and that this association is mediated by parenting factors. Adolescents' age was found to play an important role in all types of psychopathology, including anxiety and general mental health conditions.

This study presented a guide for the process of adapting the Arabic versions of the social anxiety scales and seven others scales for use in a different settings. It was acknowledged that these need psychometric testing and normative data collection

before using them in research. A significant result of this study is that the translated Arabic versions of the research instruments show internal consistency. There is now a robust ground for the Arabic version of the social anxiety scale to be used as additional measurement for capturing and understanding social anxiety symptoms of Arabic-speaking contexts. This study provides a basis for using those instruments to inform Arabic applications of clinical screening activity, and general psychological research of different treatment styles within Arabic-speaking environments. A further avenue for research is to apply the Arabic version of the SAS-A and other scales to inform the development of adaptive and supportive diagnosis and clinical treatment systems.

There are clearly further avenues of research for applying the Arabic version of the social anxiety instruments, as well as other related instruments, to other Arabic-speaking contexts. The next phase of this research is to compare the Arabic responses to the social anxiety instruments, especially the SAS-A, to those from other cultures. There are interesting areas to investigate, such as how homogeneous social anxiety symptoms are in different groups of people around the world. The results from the Arabic participants in this study indicate some preference for particular styles of diagnosing social anxiety. It would be interesting to determine whether or how learning style preferences differ between cultures, such as between Saudi and British adolescents, for example.

As social anxiety may share universal constructs across different cultures, it would be useful to investigate similarities and differences in diagnostic criteria across different Arab cultures, in order to revise or update the fundamental classification systems, the ICD and DSM. The more understanding there is of the mechanisms implicated in the development and maintenance of symptoms of social anxiety, the more informed interventions can be for children and young people who are at risk of developing social anxiety and their families, or those who have already developed impaired mental health.

REFERENCES

References

Abbott, M. J., & Rapee, R. M. (2004). Post-event rumination and negative self-appraisal in social phobia before and after treatment. *Journal of Abnormal Psychology, 113*(1), 136.

Abdel-Fattah, M. M., Asal, A., Al-Asmary, S. M., Al-Helali, N. S., Al-Jabban, T. M., & Arafa, M. A. (2004). Emotional and Behavioral Problems among Male Saudi Schoolchildren and Adolescents Prevalence and Risk Factors. *The American Journal of Geriatric Psychiatry, 1*, 1-9.

Abdel-Khalek, A. M., & Soliman, H. H. (1999). A cross-cultural evaluation of depression in children in Egypt, Kuwait, and the United States. *Psychological Reports, 85*(3 Pt. 1), 973-980.

Abdel-Sattar, I., & Al-Nafie, A. (1987). Perception and concern about sociocultural change and psychopathology in a Saudi Arabian sample. *Psychopathology, 20*(5-6), 250-254. doi:10.1159/000284508

Abe, J. S., & Zane, N. W. S. (1990). Psychological maladjustment among Asian and White American college students: Controlling for confounds. *Journal of Counseling Psychology, 37,* 437–444.

Abolfotouh, M. A. (1997). Behaviour disorders among urban schoolboys in south-western Saudi Arabia. *Eastern Mediterranean Health Journal, 3*, 274-283.

Ahmed M, A.-K., & Alansari, B. M. (2004). Gender differences in anxiety among undergraduates from ten Arab countries. *Social Behavior and Personality, 32*(7), 649-655. doi:10.2224/sbp.2004.32.7.649

Al-Fayez, A. G., & Ohaeri, J. (2011). Profile of subjective quality of life and its correlates in a nation-wide sample of high school students in an Arab setting using the WHOQOL-Bref. *BMC Psychiatry 11*, 71.

Al Gelban, K. S. (2009) Prevalence of psychological symptoms in Saudi Secondary School girls in Abha, Saudi Arabia. *The Annals of Saudi Medicine, 29*(4), 275-279.

Al Haj, M. (1995). *Education, empowerment, and control: The case of the Arabs in Israel.* Albany: State University of New York Press.

Al Zahrani, A. (2007). *Testing an Aetiological Model of Social Phobia: A Study in the Kingdom of Saudi Arabia.* (PhD Dissertation), Curtin University of Technology, Australia.

Al-Ahmadi, H. (2011). Challenges facing women leaders in Saudi Arabia. *Human Resource Development International, 14*(2), 149-166.

Albano, A. M., & Kendall, P. C. (2002). Cognitive behavioural therapy for children and adolescents with anxiety disorders: clinical research advances. *International Review of Psychiatry, 14*(2), 129-134. doi:10.1080/09540260220132644

Albano, A. M., DiBartolo, P. M., Heimberg, R. G., & Barlow, D. H. (1995). Children and adolescents: Assessment and treatment. In R. G. Heimberg, M. R. Liebowitz, D. A. Hope, & F. R. Schneier (Eds.), *Social phobia: Diagnosis, assessment and treatment* (pp. 387–425). New York: Guilford Press.

Al-Banyan, A. S. (1980). *Saudi students in the United States: A study of cross-cultural education and attitude change.* London: Ithaca Press.

Albers, H. H. (1989). *Saudi Arabia: Technocrats in a traditional society.* New York: Lang.

Alden, L. E., & Taylor, C. T. (2004). Interpersonal process in social phobia. *Clinical Psychology Review, 24*, 857-882.

Alden, L. E., & Wallace, S. T. (1991). Social standards and social withdrawal. *Cognitive Therapy and Research, 15*(1), 85-100. doi:10.1007/BF01172944

Alden, L. E., & Wallace, S. T. (1995). Social phobia and social appraisal in successful and unsuccessful social interactions. *Behaviour Research and Therapy, 33*(5), 497–505.

Alden, L. E., Mellings, T. M. B., & Ryder, A. G. (2001). Social anxiety, social phobia, and the self. In S. G. Hofmann & P. M. DiBartolo (Eds.), *From social anxiety to social phobia: multiple perspectives* (pp. 304–320). Needham Heights: Allyn & Bacon.

Alden, L. E., Taylor, C. T., Laposa, M. J., & Mellings, T. (2006). Impact of social developmental experiences on cognitive-behavioral therapy for generalized social phobia. *Journal of Cognitive Psychotherapy, 20*(1), 7-16.

Alessandri, S. M., & Lewis, M. (1993). Parental evaluation and its relation to shame and pride in young children. *Sex Roles, 29*(5), 335-343.

Al-Fakeeh, A. (1994). Adult male psychiatric morbidity among PHC attendants in Al-Khobar [PhD Dissertation]. *King Faisal Univirsity*.

Al-Faris, E., Al-Subaie, A., Khoja, T., Al-Ansary, L., Abdul-Raheem, F., Al-Hamdan, N., . . . & Khwsky, F. E. (1997). Training primary health care physicians in Saudi Arabia to recognize psychiatric illness. *Acta Psychiatrica Scandinavica*, *96*(6), 439-444.

Al-Farsy, F. (1986). *Saudi Arabia: A Country Study in Development*: London: Kegan Paul.

Al-Garni, M. M. (2000). The impact of family structure and family function factors on the deviant behaviors of high school students in Makkah City, Saudi Arabia (Doctoral dissertation, University of Arizona). *Dissertation Abstracts International A, 61*(5), 1749.

Al-Gelban, K. S. (2007). Depression, anxiety and stress among Saudi adolescent school boys. *The Journal of the Royal Society for the Promotion of Health*, *127*(1), 33.

Al-Haidar, F. A. (2003). Survey of inpatients child and adolescent psychiatric referrals in a teaching hospital in Saudi Arabia. *Neurosciences, 8*(1), 43-45.

Al-Hemaidi, W. K. (2001). The metamorphosis of the urban fabric in Arab-Muslim City: Riyadh, Saudi Arabia. *Journal of Housing and the Built Environment, 16*(2), 179-201.

Al-Hinai, S. S., Al-Saidy, O., Dorvlo, A. S. S., Al-Riyami, B. M. S., Bhargava, K., & Northway, M. G., . . . Al Adawi, S (2006). Culture and prevalence of social phobia in a college population in Oman. In M.V. Landow (Ed.) *College Students: Mental Health and Coping Strategies* (pp. 2-19). Hauppauge, New York: Nova Science Publishers.

Al-Khateeb, S. A. H. (2008). Women, Family and the Discovery of Oil in Saudi Arabia. *Marriage & Family Review, 27*(1-2), 167-189. doi:10.1300/J002v27n01_11

Al-Khathami, A. D., Mangoud, A. M., Rahim, I. A., & AbuMadini, M. S. (2011). Traditional mental health training's effect on primary care physicians in Saudi Arabia. *Mental Health in Family Medicine*, *8*(1), 3.

Al-Khodair, I., & Freeman, C. (1997). Social phobia in two cultures: Cross cultural study of social phobia in Saudi Arabia and Scotland. *Saudi Medical Journal, 18*(2), 130-136.

Al-Krenawi, A., & Graham, J. R. (2000). Culturally sensitive social work practice with Arab clients in mental health settings. *Health and Social Work, 25*(1), 9-22.

Allik, J., & McCrae, R. R. (2004). Toward a geography of personality traits: Patterns of profiles across 36 cultures. *Journal of Cross-Cultural Psychology, 35*(1), 13-28. doi:10.1177/0022022103260382

Almalki, M., FitzGerald, G., & Clark, M. (2011). The nursing profession in Saudi Arabia: An overview. *International Nursing Review, 58*(3), 304-311.

Alotaibi, B. J. (1993). Attitudes of teachers toward the "knowing that" and "knowing how" methods of teaching in Saudi Arabian schools (Doctoral dissertation, University of Pittsburgh). *Dissertation Abstracts International A, 55* (03), 501.

Al-Rasheed, M. (2002). *A History of Saudi Arabia*. Cambridge: Cambridge University Press.

Al-Sadlaan, S. i. G. (1996). *Marital Discord (al-nushooz): Its Definition, Cases, Causes, Means of Protection from It, and Its Remedy from the Quran and Sunnah*. Baltimore, MD: Al-Basheer Co. for Publications and Translations.

Al-Saggaf, Y. (2004). The effect of online community on offline community in Saudi Arabia. *The Electronic Journal of Information Systems in Developing Countries, 16(2), 1-16.*

Al-Saif, M. I. (2003). *An introduction to the study of Saudi society.* Riyadh, Saudi Arabia: Dar Al-Kuraji.

Al-Sudairi, N. M. (2000). Children's books of Saudi Arabia: Literary and cultural analysis (Doctoral dissertation, Ohio State University, 2000). *Dissertation Abstracts International A, 61* (10), 3927.

American Psychiatric Association. (1980). *Diagnostic and Statistical Manual of Mental Disorders* (3rd edn.). Washington, DC: American Psychiatric Association.

American Psychiatric Association . (1987). *Diagnostic and Statistical Manual of Mental Disorders* (3rd, revised edn.) Washington, DC: American Psychiatric Association.

American Psychiatric Association (1994). *Diagnostic and Statistical Manual of Mental Disorders* (4th edn.) Washington, DC: American Psychiatric Association.

American Psychiatric Association. (2000) *Diagnostic and Statistical Manual of Mental Disorders* (4th edn., text rev.). Washington, DC: American Psychiatric Association.

Amies, P. L., Gelder, M. G., & Shaw, P. M. (1983). Social phobia: A comparative clinical study. *The British Journal of Psychiatry, 142*(2), 174-179. doi:10.1192/bjp.142.2.174

Anderson, E., & Hope, D. A. (2008). A review of the tripartite model for understanding the link between anxiety and depression in youth. *Clinical Psychology Review, 28(2),* 275-287.

Anderson, L. H. (2001). *Saudi Arabia.* Minneapolis, MN: Carolrhoda Books.

Antony, M. M., Coons, M. J., McCabe, R. E., Ashbaugh, A. R., & Swinson, R. P. (2006). Psychometric properties of the Social Phobia Inventory: Further evaluation. *Behaviour Research and Therapy, 44(8),* 1177-1185.

Antony, M. M., Roth, D., Swinson, R. P., Huta, V., Devins, G. M. (1998). Illness intrusiveness in individuals with panic disorder, obsessive-compulsive disorder, or social phobia. *The Journal of Nervous and Mental Disease, 186*(5), 311-315.

Arafa, M., Al-Klmi, M., Hamdi, E., Yousseryia, A., El-Defrawi, & Moussa, F. A. (1992). Social Phobia in an Arab Culture: The Impact of Sociocultural Factors. *Egyption Journal of Psychiatry, 15*(1), 102-113.

Arbelle, S., Benjamin, J., Golin, M., Kremer, I., Belmaker, R. H., & Ebstein, R. P. (2003). Relation of shyness in grade school children to the genotype for the long form of the serotonin transporter promoter region polymorphism. *American Journal of Psychiatry, 160*(4), 671-676.

Arkowitz, H., Lichtenstein, E., McGovern, K., & Hines, P. (1975). The behavioral assessment of social competence in males. *Behavior Therapy, 6,* 3–13. doi:10.1016/S0005-7894(75)80056-6

Arrindell, W. A., Eisemann, M., Oei, T. P. S., Caballo, V. E., Sanavio, E., Sica, C., . . . Van der Ende, J. (2004). Phobic anxiety in 11 nations: Part II. Hofstede's dimensions of national cultures predict national-level variations *Personality and Individual Differences, 37*(3), 627-643. doi:10.1016/j.paid.2003.11.002

Arrindell, W. A., Emmelkamp, P. M., Monsma, A., & Brilman, E. (1983). The role of perceived parental rearing practices in the aetiology of phobic disorders: A

controlled study. *The British Journal of Psychiatry, 143*(2), 183-187. doi:10.1192/bjp.143.2.183

Arrindell, W. A., Kwee, M., Methorst, G., Van der Ende, J., Pol, E., & Moritz, B. (1989). Perceived parental rearing styles of agoraphobic and socially phobic in-patients. *The British Journal of Psychiatry, 155*(4), 526-535.

Baker, S. R., & Edelmann, R. J. (2002). Is social phobia related to lack of social skills? Duration of skill-related behaviours and ratings of behavioural adequacy. *British Journal of Clinical Psychology, 41(3),* 243–257. doi:10.1348/014466502760379118

Ballenger, J. C., Davidson, J. R., Lecrubier, Y., Nutt, D. J., Bobes, J., Beidel, D. C., . . . Westenberg, H. G. (1998). Consensus statement on social anxiety disorder from the international consensus group on depression and anxiety. *The Journal of Clinical Psychiatry, 59 Suppl 17*, 54-60.

Barakat, H. (1993). *The Arab world: Society, culture, and state.* Berkeley: University of California Press.

Barlow, D. H. (2002). Anxiety and its disorders: The nature and treatment of anxiety and panic (2nd edn.). New York: Guilford Press.

Basaffar, A. A. (2012). Understanding the entrepreneurial potential of female Saudi Arabian family and consumer sciences students and businesswomen. [PhD Dissertation]. Iowa State University.

Bassiony, M. M. (2005). Social anxiety disorder and depression in Saudi Arabia. *Depression and Anxiety, 21*(2), 90-94. doi:10.1002/da.20056

Baumgardner, A. H., & Brownlee, E. A. (1987). Strategic failure in social interaction: Evidence for expectancy disconfirmation processes. *Journal of Personality and Social Psychology, 52*(3), 525-535.

Baumrind, D. (1971). Current patterns of parental authority. *Developmental Psychology Monographs, 4(1),* 1.

Bayramkaya, E., Toros, F., Ö zge, C. (2005). The relationship between social phobia and depression, self-concept, smoking habit in adolescents. *Bulletin of Clinical Psychopharmacology, 15*, 165–173.

Beaton, D. E., Bombardier, C., Guillemin, F., & Ferraz, M. B. (2000). Guidelines for the process of cross-cultural adaptation of self-report measures. *Spine, 25*(24), 3186-3191.

Beck, A. T., & Clark, D. A. (1997). An information processing model of anxiety: Automatic and strategic processes. *Behaviour Research and Therapy, 35*(1), 49-58.

Beck, A. T., & Steer, R. A. (1990). *Manual for the Beck anxiety inventory*. San Antonio, TX: Psychological Corporation.

Beck, A. T., Emery, G., & Greenberg, R. L. (1985). *Anxiety disorders and phobias: A cognitive perspective*. New York: Basic Books.

Beesdo, K., Knappe, S., & Pine, D. S. (2009). Anxiety and anxiety disorders in children and adolescents: Developmental issues and implications for DSM-V. *The Psychiatric Clinics of North America, 32*(3), 483-524. doi:10.1016/j.psc.2009.06.002

Beidel, D. C. (1998). Social anxiety disorder: Etiology and early clinical presentation. *The Journal of Clinical Psychiatry, 59 Suppl 17*, 27-32.

Beidel, D. C., & Turner, S. M. (1999). The natural course of shyness and related syndromes. In L. A. Schmidt & J. Schulkin (Eds.), *Extreme fear, shyness, and social phobia: Origins, biological mechanisms, and clinical outcomes* (pp. 203–223). New York, NY: Oxford University Press.

Beidel, D. C., Christ, M. G., & Long, P. J. (1991). Somatic complaints in anxious children *Journal of Abnormal Child Psychology, 19*(6), 659-670.

Beidel, D. C., Ferrell, C., Alfano, C. A., & Yeganeh, R. (2001). The treatment of childhood social anxiety disorder. *Psychiatric Clinics of North America, 24*(4), 831-846.

Beidel, D. C., Turner, S. M., & Morris, T. L. (1999). Psychopathology of childhood social phobia. *Journal of the American Academy of Child & Adolescent Psychiatry, 38*(6), 643-650. doi:10.1097/00004583-199906000-00010

Beidel, D. C., Turner, S. M., & Morris, T. L. (2000). Behavioral treatment of childhood social phobia. *Journal of Consulting and Clinical Psychology, 68*(6), 1072.

Beidel, D. C., Turner, S. M., Young, B. J., Ammerman, R. T., Sallee, F. R., & Crosby, L. (2007). Psychopathology of adolescent social phobia *Journal of*

Psychopathology and Behavioral Assessment, 29(1), 46-53. doi:10.1007/s10862-006-9021-1

Benatar, S. R. (2002). Reflections and recommendations on research ethics in developing countries. Social Science & Medicine, *54*(7), 1131-1141.

Berg, I. (1992). Absence from school and mental health. *British Journal of Psychiatry, 161(2),* 154–166.

Berkanovic, E. (1980). The effect of inadequate language translation on Hispanics' responses to health surveys. *The American Journal of Public Health, 70(12),* 1273-276.

Bernstein, G. A., Crosby, R. D., Perwien, A. R., & Borchardt, C. M. (1996). Anxiety rating for children — revised: Reliability and validity. *Journal of Anxiety Disorders, 10*(2), 97-114. doi:10.1016/0887-6185(95)00039-9

Berry, D. S., & Hansen, J. S. (1996). Positive affect, negative affect, and social interaction. *Journal of Personality and Social Psychology, 71(4),* 796–809.

Birenbaum, M., & Nasser, F. (2006). Ethnic and gender differences in mathematics achievement and in dispositions towards the study of mathematics. *Learning and Instruction, 16*(1), 26-40. doi:10.1016/j.learninstruc.2005.12.004

Bögels, S. M., & Siqueland, L. (2006). Family cognitive behavioral therapy for children and adolescents with clinical anxiety disorders. *Journal of the American Academy of Child & Adolescent Psychiatry, 45*(2), 134-141.

Bögels, S. M., & Tarrier, N. (2004). Unexplored issues and future directions in social phobia research. *Clinical Psychology Review, 24*(7), 731-736. doi:10.1016/j.cpr.2004.07.003

Bögels, S. M., & Zigterman, D. (2000). Dysfunctional cognitions in children with social phobia, separation anxiety disorder, and generalized anxiety disorder. *Journal of Abnormal Child Psychology, 28*(2), 205-211.

Borge, F. M., Hoffart, A., & Sexton, H. (2010). Predictors of outcome in residential cognitive and interpersonal treatment for social phobia: Do cognitive and social dysfunction moderate treatment outcome? *Journal of Behavior Therapy and Experimental Psychiatry, 41*(3), 212-219.

Borsa, J. C., Damásio, B. F., & Bandeira, D. R. (2012). Cross-cultural adaptation and validation of psychological instruments: Some considerations. *Paidéia* (Ribeirão Preto), *22*(53), 423-432.

Bremner, G. J., Slater, A. (Eds.) (2003) *An Introduction to Development Psychology*. Oxford Blackwell Publishing.

Brislin, R. W. (1970) Back-translation for cross-cultural research. *Journal of Cross-Cultural Psychology, 1(3),* 185-216.

Brislin, R. W. (1976). Introduction. In R.W. Brislin (Ed.) *Translation: Approaches and research*. New York: Gardner Press.

British Psychological Society (2010). *Code of human research ethics*. Leicester, UK: BPS.

Brooks, T. L., Harris, S. K., Thrall, J. S., & Woods, E. R. (2002). Association of adolescent risk behaviors with mental health symptoms in high school students. *Journal of Adolescent Health, 31*(3), 240-246.

Brown, Craig, T. K. J., Harris, T. O., Handley, R. V., & Harvey, A. L. (2007). Validity of retrospective measures of early maltreatment and depressive episodes using the Childhood Experience of Care and Abuse (CECA) instrument — A life-course study of adult chronic depression — 2. *Journal of Affective Disorders, 103*(1–3), 217-224. doi:10.1016/j.jad.2007.06.003

Brown, H. M., McAdams, T. A., Lester, K. J., Goodman, R., Clark, D. M., & Eley, T. C. (2013). Attentional threat avoidance and familial risk are independently associated with childhood anxiety disorders. *Journal of Child Psychology and Psychiatry, 54*(6), 678-685.

Brown, T. A., Chorpita, B. F., & Barlow, D. H. (1998). Structural relationships among dimensions of the *DSM–IV* anxiety and mood disorders and dimensions of negative affect, positive affect, and autonomic arousal. *Journal of Abnormal Psychology, 107(2),* 179–192.

Bruce, S. E., Yonkers, K. A., Otto, M. W., Eisen, J. L., Weisberg, R. B., Pagano, M., . . . Keller, M. B. (2005). Influence of psychiatric comorbidity on recovery and recurrence in generalized anxiety disorder, social phobia, and panic disorder: A 12-year prospective study. *The American Journal of Psychiatry, 162*(6), 1179-1187.

Bruch, M. A. (1989). Familial and developmental antecedents of social phobia: Issues and findings. *Clinical Psychology Review, 9*(1), 37-47.

Bruch, M. A., & Heimberg, R. G. (1994). Differences in perceptions of parental and personal characteristics between generalized and nongeneralized social phobics. *Journal of Anxiety Disorders, 8*(2), 155-168. doi:10.1016/0887-6185(94)90013-2

Bryman, A., & Bell, E. (2007). *Business Research Methods* (2nd edn.). Oxford: Oxford University Press.

Buka, S. L., Stichick, T. L., Birdthistle, I., & Earls, F. J. (2001). Youth exposure to violence: Prevalence, risks, and consequences. *American Journal of Orthopsychiatry, 71*(3), 298-310.

Buss, A. H. (1986). A theory of shyness. In W. H. Jones, J. M. Cheek, & S. R. Biggs (Eds.), *Shyness: Perspectives on research and treatment* (pp. 39–46). New York: Plenum.

Calvert, J. R., & Al-Shetaiwi, A. S. (2002). Exploring the mismatch between skills and jobs for women in Saudi Arabia in technical and vocational areas: the views of Saudi Arabian private sector business managers. *International Journal of Training and Development, 6*(2), 112-124.

Canino, G.J., Bird, H.R., Shrout, P.E. (1987). The prevalence of specific psychiatric disorder in Puerto Rico. *Archives of General Psychiatry,* 44, 727–735.

Canino, G., Shrout, P. E., Rubio-Stipec, M., Bird, H. R., Bravo, M., Ramirez, R., . . . Martinez-Taboas, A. (2004). The DSM-IV rates of child and adolescent disorders in Puerto Rico: Prevalence, correlates, service use, and the effects of impairment *Archives of General Psychiatry, 61*(1), 85-93. doi:10.1001/archpsyc.61.1.85

Cappella, J. N. (1985). Production principles for turn-taking rules in social interaction: Socially anxious vs. socially secure persons. *Journal of Language and Social Psychology, 4*, 193–212.

Cartwright-Hatton, S., Tschernitz, N., & Gomersall, H. (2005). Social anxiety in children: social skills deficit, or cognitive distortion? *Behaviour Research and Therapy, 43*(1), 131-141. doi:10.1016/j.brat.2003.12.003

Carver, C. S., & Scheier, M. F. (1981). The self-attention-induced feedback loop and social facilitation. *Journal of Experimental Social Psychology, 17*(6), 545-568. doi:10.1016/0022-1031(81)90039-1

Caspi, A., & Shiner, R. L. (2006). Personality development. *Handbook of Child Psychology*.

Cassano, G. B., Pini, S., Saettoni, M., & Dell'Osso, L. (1999). Multiple anxiety disorder comorbidity in patients with mood spectrum disorders with psychotic features. *American Journal of Psychiatry, 156*(3), 474-476.

Chaleby, K. (1987). Social phobia in Saudis. *Social psychiatry and psychiatric epidemiology, 22*(3), 167-170.

Chaleby, K., & Raslan, A. (1990). Delineation of social phobia in Saudia Arabians. *Social Psychiatry and Psychiatric Epidemiology, 25*(6), 324-327.

Chambers, J. A., Power, K. G., & Durham, R. C. (2004). The relationship between trait vulnerability and anxiety and depressive diagnoses at long-term follow-up of Generalized Anxiety Disorder. *Journal of Anxiety Disorders, 18*(5), 587-607.

Chambless, D. L., Tran, G. Q., & Glass, C. R. (1997). Predictors of response to cognitive-behavioral group therapy for social phobia. *Journal of Anxiety Disorders, 11*(3), 221-240.

Chao, R. K. (1994). Beyond parental control and authoritarian parenting style: Understanding Chinese parenting through the cultural notion of training. *Child Development, 65*(4), 1111-1119. doi:10.1111/j.1467-8624.1994.tb00806.x

Chapman, T. F., Mannuzza, S., Fyer, A. J., Heimberg, R., Liebowitz, M., Hope, D., & Schneier, F. (1995). Epidemiology and family studies of social phobia. *Social phobia: Diagnosis, assessment, and treatment*, 21-40.

Chartier, W, J., & Stein, M. (2001). Social phobia and potential childhood risk factors in a community sample. *Psychological Medicine, 31*(2), 307-315.

Chartier, W., J., & Stein. (2003). Considering comorbidity in social phobia. *Social psychiatry and psychiatric epidemiology, 38*(12), 728-734. doi:10.1007/s00127-003-0720-6

Chavira, D. A., Stein, M. B., Bailey, K., & Stein, M. T. (2004). Comorbidity of generalized social anxiety disorder and depression in a pediatric primary care sample. *Journal of Affective Disorders, 80*(2–3), 163-171. doi:10.1016/S0165-0327(03)00103-4

Cheek, J. M., & Briggs, S. R. (1990). Shyness as a personality trait. In W. R. Crozier (Ed.), *Shyness and embarrassment: Perspectives from social psychology* (pp. 315–337). New York: Cambridge University Press.

Chen, G.-M. (1995). Differences in self-disclosure patterns among Americans versus Chinese: A comparative study. *Journal of Cross-Cultural Psychology, 26*(1), 84–91. doi:10.1177/0022022195261006

Chen, X. (2000). Growing up in a collectivistic culture: Socialization and socioemotional development in Chinese children. In A. L. Comunian & U. P. Gielen (Eds.), *International perspectives on human development* (pp. 331–353). Lengerich, Germany: Pabst Science Publishers.

Chorpita, B. F., Albano, A. M., & Barlow, D. H. (1998). The structure of negative emotions in a clinical sample of children and adolescents. *Journal of Abnormal Psychology*, *107*(1), 74.

Chorpita, B. F., Brown, T. A., & Barlow, D. H. (1998). Perceived control as a mediator of family environment in etiological models of childhood anxiety. *Behavior Therapy*, *29*(3), 457-476.

Chorpita, B. F., Moffitt, C. E., & Gray, J. (2005). Psychometric properties of the Revised Child Anxiety and Depression Scale in a clinical sample. *Behaviour Research and Therapy*, *43*(3), 309-322.

Chorpita, B. F., Plummer, C. M., & Moffitt, C. E. (2000). Relations of tripartite dimensions of emotion to childhood anxiety and mood disorders. *Journal of Abnormal Child Psychology*, *28*(3), 299-310.

Clark, D. M. (2001). A cognitive perspective on social phobia. In W. R. Crozier & L. E. Alden (Eds.), *International handbook of social anxiety: Concepts, research and interventions relating to the self and shyness* (pp. 405–430). Chichester, England: John Wiley & Sons.

Clark, D. M., & McManus, F. (2002). Information processing in social phobia. *Biological Psychiatry, 51*(1), 92-100. doi:10.1016/S0006-3223(01)01296-3

Clark, D. M., & Wells, A. (1995). A cognitive model of social phobia. In R. G. Heimberg, M. R. Liebowitz, D. A. Hope, & F. R. Schneier (Eds.), *Social phobia: Diagnosis, assessment, and treatment* (pp. 69–93). New York: Guilford Press.

Coles, M. E., Turk, C. L., Heimberg, R. G., & Fresco, D. M. (2001). Effects of varying levels of anxiety within social situations: Relationship to memory perspective

and attributions in social phobia. *Behaviour Research and Therapy*, *39*(6), 651-665.

Collis, J., & Hussey, R. (2003). *Business Research: A Practical Guide for Undergraduate and Postgraduate Students*. (2nd edn.). New York: Palgrave Macmillan.

Collis, J., & Hussey, R. (2009). *Business Research: A Practical Guide for Undergraduate and Postgraduate Students.* (3rd edn.). New York: Palgrave Macmillan.

Connor, K. M., Davidson, J. R. T., Churchill, L. E., Sherwood, A., Foa, E., & Wesler, R. H. (2000). Psychometric properties of the Social Phobia Inventory (SPIN). *British Journal of Psychiatry, 176,* 379- 386.

Costello, E. J., Compton, S. N., Keeler, G., & Angold, A. (2003). Relationships between poverty and psychopathology: A natural experiment. *Journal of the American Medical Association, 290*(15), 2023-2029. doi:10.1001/jama.290.15.2023

Cox, B. J., Borger, S. C., & Enns, M. W. (1999). Anxiety sensitivity and emotional disorders: Psychometric studies and their theoretical implications. *Anxiety sensitivity: Theory, research, and treatment of the fear of anxiety*, 115-148.

Creswell, J. W. (2003). *Research Design: Qualitative, Quantitative, and Mixed Methods Approaches*. (2nd edn.). London: Sage Publications.

Cross, S. E., & Madson, L. (1997a). Models of the self: Self-construals and gender. *Psychological Bulletin, 122*(1), 5-37. doi:10.1037/0033-2909.122.1.5

Cross, S. E., & Madson, L. (1997b). Elaboration of models of the self: reply to Baumeister and Sommer (1997) and Martin and Ruble (1997). *Psychological Bulletin, 122*(1), 51–55.

Cunha, M., Pinto-Gouveia, J., Alegre, S., Salvador, M.C. (2004). Assessment of social anxiety in adolescence: the Portuguese version of the SAS-A. *Psychologica, 35*,249–263

Davidson, J. R., Hughes, D. C., George, L. K., & Blazer, D. G. (1993). The epidemiology of social phobia: Findings from the duke epidemiological catchment area study. *Psychological Medicine, 23*(3), 709-718.

Davidson, R. T., Hughes, D. C., George, L. K., & Blazer, D. G. (1994). The boundary of social phobia: Exploring the threshold. *Archives of General Psychiatry, 51*(12), 975–983.

Davidson, Marshall, J. R., Tomarken, A. J., & Henriques, J. B. (2000). While a phobic waits: Regional brain electrical and autonomic activity in social phobics during anticipation of public speaking. *Biological Psychiatry, 47*(2), 85-95.

Davidson, Miner, C., De Veaugh-Geiss, J., Tupler, L., Colket, J., & Potts, N. (1997). The brief social phobia scale: a psychometric evaluation. *Psychological Medicine, 27*(1), 161-166.

Davila, J., & Beck, J. G. (2002). Is social anxiety associated with impairment in close relationships? A preliminary investigation. *Behavior Therapy, 33*, 427 44.

De Vaus, D. (2001). *Research Design in Social Research*. London: Sage Publications

Degonda, M., Wyss, M., & Angst, J. (1993). The Zurich Study. *European Archives of Psychiatry and Clinical Neuroscience, 243*(1), 16-22. doi:10.1007/bf02191519

DeGregorio, E., & Carver, C. S. (1980). Type A behavior pattern, sex role orientation, and psychological adjustment. *Journal of Personality and Social Psychology, 39*(2), 286.

del Mar Diaz-Castela, M., Hale III, W. W., Muela, J. A., Espinosa-Fernández, L., Klimstra, T., & Garcia-Lopez, L. J. (2013). The Measurement of Perceived Emotional Intelligence for Spanish Adolescents with Social Anxiety Disorder Symptoms. *Anales de Psicología, 29*(2), 509-515.

Dell'Osso, L., Rucci, P., Ducci, F., Ciapparelli, A., Vivarelli, L., Carlini, M., . . . Cassano, G. B. (2003). Social anxiety spectrum. *European Archives of Psychiatry and Clinical Neuroscience, 253*(6), 286-291.

Delong, H., & Pollack, M. H. (2008). Update on the assessment, diagnosis, and treatment of individuals with social anxiety disorder. *FOCUS: The Journal of Lifelong Learning in Psychiatry, 6*(4), 431-437.

Demir, T., Karacetin, G., Eralp Demir, D., & Uysal, O. (2013). Prevalence and some psychosocial characteristics of social anxiety disorder in an urban population of Turkish children and adolescents. *European Psychiatry, 28*(1), 64-69. doi:10.1016/j.eurpsy.2011.12.003

Deniz, C. B. (2004). Early childhood teachers' beliefs about and selfreported practices toward children's private speech. *Dissertation Abstracts International A, 64* (09), 3185.

DePaullo, B. M., Epstein, J. A., & LeMay, C. S. (1990). Responses of the socially anxious to the prospect of interpersonal evaluation. *Journal of Personality, 58,* 623–640.

DeWit, D. J., Chandler-Coutts, M., Offord, D. R., King, G., McDougall, J., Specht, J., & Stewart, S. (2005). Gender differences in the effects of family adversity on the risk of onset of DSM-III-R social phobia. *Journal of Anxiety Disorders, 19*(5), 479-502.

Diener, E., Suh, E. M., Lucas, R. E., & Smith, H. L. (1999). Subjective well-being: Three decades of progress. *Psychological Bulletin, 125*(2), 276-302

Dimenas, E. S., Dahlof, C. G., Jern, S. C., & Wiklund, I. K. (1990). Defining quality of life in medicine. *Scandinavian Journal of Primary Health Care, Supplement, 1*, 7-10.

Dinnel, D. L., Kleinknecht, R. A., & Tanaka-Matsumi, J. (2002). A cross-cultural comparison of social phobia symptoms. *Journal of Psychopathology and Behavioral Assessment, 24*(2), 75-84.

Douki, S., Ben Zineb, S., Nacef, F., & Halbreich, U. (2007). Women's mental health in the Muslim world: Cultural, religious, and social issues. *Journal of Affective Disorders, 102*(1), 177-189.

Doumato, E. A. (2003). Education in Saudi Arabia: gender, jobs, and the price of religion. *Women and Globalization in the Arab Middle East*, 239-258.

Dusek J (1991) *Adolescent development and behavior* (3rd edn.) Palo Alto, CA: Science Research Associates.

Duval, S., & Wicklund, R. A. (1972). *A theory of objective self awareness*. New York: Academic Press.

Dwairy, M. (1997). *Personality, culture, and Arab society*. Jerusalem, Israel: Al-Noor Press.

Dwairy, M. (2004a). Parenting styles and mental health of Arab gifted adolescents. *Gifted Child Quarterly, 48*(4), 275-286.

Dwairy, M. (2004b). Parenting styles and mental health of Palestinian-Arab adolescents in Israel. *Transcultural Psychiatry, 41,* 233–252.

Dwairy, M. (2004c). Parenting styles and psychological adjustment of Arab adolescents. *Transcultural Psychiatry*, *41*(2), 233-252.

Dwairy, M., & Dor, A. (2009). Parenting and psychological adjustment of adolescent immigrants in Israel. *Journal of Family Psychology*, *23*, 416-425.

Dwairy, M., Achoui, M., Abouserie, R., & Farah, A. (2006). Parenting styles, individuation, and mental health of Arab adolescents: A third cross-regional research study. *Journal of Cross-Cultural Psychology*, *37*, 262-272.

Dwairy, M., Achoui, M, Abouserie, R., Farah, A., Sakhleh, A. A., Fayad, M., & Khan, H. K. (2006). Parenting styles in Arab societies: A first cross-regional research study. *Journal of Cross-Cultural Psychology, 37*(3), 230-247. doi:10.1177/0022022106286922

Easterby-Smith, M., Thorpe, R. and Jackson, P. R. (2008). *Management Research*. (3rd edn.). London: Sage Publications Ltd.

Eid, M., & Larsen, R. J. (Eds.). (2008). *The science of subjective well-being*. New York, NY: Guilford Press.Ekman, P. (1992). An argument for basic emotions. *Cognition & Emotion, 6*, 169–200.

El-Islam, M. F. (1982). Arabic cultural psychiatry. *Transcultural Psychiatry*, *19*(1), 5-24.Elkind, D. (1980). Strategic interactions in early adolescence. In J. Adelson (Ed.), *Handbook of adolescent psychology* (pp. 432– 444). New York: Wiley.

El-Tantawy, A. M., Raya, Y. M., Al-Yahya, A. H., & Zaki, A. S. M. K. (2010). Social Phobia Among Patients Attending the Outpatient Clinics of Buraydah Mental Health Hospital, Al-Gassim, KSA. *Current Psychiatry*, *17*(2), 35-43.

Eng, W., Coles, M. E., Heimberg, R. G., & Safren, S. A. (2005). Domains of life satisfaction in social anxiety disorder: Relation to symptoms and response to cognitive-behavioral therapy *Journal of Anxiety Disorders, 19*(2), 143-156. doi:10.1016/j.janxdis.2004.01.007

Erath, S. A., Flanagan, K. S., & Bierman, K. L. (2007). Social anxiety and peer relations in early adolescence: Behavioral and cognitive factors *Journal of Abnormal Child Psychology*, *35*(3), 405-416. doi:10.1007/s10802-007-9099-2

Esmaeili, H. (2009). On a Slow Boat towards the Rule of Law: The Nature of Law in the Saudi Arabia Legal System. *'Arizona Journal of International and Comparative Law, 26*, 1.

Essau, C. A., Conradt, J., & Petermann, F. (1999). Frequency and comorbidity of social phobia and social fears in adolescents. *Behaviour Research and Therapy, 37*(9), 831-843. doi:10.1016/s0005-7967(98)00179-x

Essau, C. A., Conradt, J., & Petermann, F. (2000). Frequency, Comorbidity, and Psychosocial Impairment of Depressive Disorders in Adolescents. *Journal of Adolescent Research, 15*(4), 470-481. doi:10.1177/0743558400154003

Essau, C. A., Sasagawa, S., Chen, J., & Sakano, Y. (2010; 2012). Taijin kyofusho and social phobia symptoms in young adults in England and in Japan *Journal of Cross-Cultural Psychology, 43*(2), 219-232. doi:10.1177/0022022110386372

Eysenck, S. B., & Abdel-Khalek, A. M. (1989). A cross-cultural study of personality: Egyptian and English children. *International journal of psychology*, *24*(1-5), 1-11.

Fargues, P. (2003). La femme dans les pays arabes: vers une remise en cause du système patriarcal? *Population et Sociétés*, 387, 1-4.

Farmer, A. S., & Kashdan, T. B. (2012). Social anxiety and emotion regulation in daily life: Spillover effects on positive and negative social events. *Cognitive Behaviour Therapy, 41,* 152–162. doi:10.1080/ 16506073.2012.666561

Fedoroff, I. C., & Taylor, S. (2001). Psychological and pharmacological treatments of social phobia: a meta-analysis. *Journal of clinical psychopharmacology*, *21*(3), 311.

Feehan, M., McGee, R., Raja, S. N., & Williams, S. M. (1994). DSM-III-R disorders in New Zealand 18-year-olds *Australian and New Zealand Journal of Psychiatry, 28*(1), 87-99. doi:10.3109/00048679409075849

Feingold, A. (1994). Gender differences in personality: A meta-analysis *Psychological Bulletin, 116*(3), 429-456.

Feske, U., Perry, K. J., Chambless, D. L., Renneberg, B., & Goldstein, A. J. (1996). Avoidant personality disorder as a predictor for treatment outcome among generalized social phobics. *Journal of Personality Disorders, 10*(2), 174-184.

Field, T., Hernandez-Reif, M., Vera, Y., Gil, K., Diego, M., Bendell, D., et al. (2005). Anxiety and anger effects on depressed mother–infant spontaneous and imitative interactions. *Infant Behavior & Development, 28*, 1–9.

Ford, T., Goodman, R., & Meltzer, H. (2003). The British Child and Adolescent Mental Health Survey 1999: The Prevalence of DSM-IV Disorders. *Journal of the American Academy of Child & Adolescent Psychiatry, 42*(10), 1203-1211.

Freeman, M. P., Freeman, S. A., & McElroy, S. L. (2002). The comorbidity of bipolar and anxiety disorders: prevalence, psychobiology, and treatment issues. *Journal of affective disorders, 68*(1), 1-23.

Furmark, T. (2002). Social phobia: Overview of community surveys *Acta Psychiatrica Scandinavica, 105*(2), 84-93. doi:10.1034/j.1600-0447.2002.1r103.x

Furmark, T., Tillfors, M., Everz, P. O., Marteinsdottir, I., Gefvert, O., & Fredrikson, M. (1999). Social phobia in the general population: prevalence and sociodemographic profile. *Social psychiatry and psychiatric epidemiology*, *34*(8), 416-424.

Gallagher, H. M., Rabian, B. A., & McCloskey, M. S. (2004). A brief group cognitive-behavioral intervention for social phobia in childhood. *Journal of Anxiety Disorders, 18*(4), 459-479.

Garcıa-Lopez LJ, Olivares J, Hidalgo MD, Beidel DC, Turner S (2001) Psychometric properties of the social phobia and anxiety inventory, the social anxiety scale for adolescents, the fear of negative evaluation scale and the social avoidance and distress scale in an adolescent spanish-speaking sample. *Journal of psychopathology and behavioural assessment*, 23:51–59

Garralda, M. Elena, Raynaud, Jean-Phillippe, (2010) Increasing Awareness of Child and Adolescent Mental Health, *Rowman and Littlefield Publishers Inc., Plymouth*

Gategno, C. (2010). *The Adolescent and his Will*. Educational Solutions Worldwide.

Gates, L., Lineberger, M. R., Crockett, J., & Hubbard, J. (1988). Birth order and its relationship to depression, anxiety, and self-concept test scores in children. *The Journal of genetic psychology*, *149*(1), 29-34.

Ghaedi,Gholam Hossein, Tavoli, Azadeh, Bakhtiari, Maryam, Melyani, Mahdieh, Sahragard, Mahdi (2009) *Quality of Life in College Students with and without Social Phobia*. Springer Science Business Media.

Ghauri, P. and Gronhaug, K. (2005). *Research Methods in Business Studies: A Practical Guide*. (3rd edn.). London: Pearson Education.

Ghubash, E. H., & Bebbington, P. (1994) The Dubai community psychiatric survey: Acculturation and the prevalence of psychiatric disorder. *Psychological Medicine*, *24*(1), 121-131.

Ghubash, R., Hamdi, E., & Bebbington, P. (1992). The Dubai community psychiatric survey: I. prevalence and socio-demographic correlates *Social Psychiatry and Psychiatric Epidemiology, 27*(2), 53-61. doi:10.1007/BF00788506

Gilbert, P. (2001). Evolution and social anxiety *Psychiatric Clinics of North America, 24*(4), 723-751. doi:10.1016/S0193-953X(05)70260-4

Gillott, A., Furniss, F., & Walter, A. (2001). Anxiety in high-functioning children with autism. *Autism*, *5*(3), 277-286.

Ginsburg, G. S., La Greca, A. M., & Silverman, W. K. (1998). Social anxiety in children with anxiety disorders: Relation with social and emotional functioning. *Journal of Abnormal Child Psychology*, *26*(3), 175-185.

Gladis, M. M., Gosch, E. A., Dishuk, N. M., & Crits-Christoph, P. (1999). Quality of life: Expanding the scope of clinical significance *Journal of Consulting and Clinical Psychology, 67*(3), 320-331.

Gladstone, G. L., Parker, G. B., Mitchell, P. B., Wilhelm, K. A., & Malhi, G. S. (2005). Relationship between self-reported childhood behavioral inhibition and lifetime anxiety disorders in a clinical sample. *Depression and Anxiety, 22*(3), 103-113.

Goldin, P. R., Manber-Ball, T., Werner, K., Heimberg, R., & Gross, J. J. (2009). Neural mechanisms of cognitive reappraisal of negative selfbeliefs in social anxiety disorder. *Biological Psychiatry, 66*, 1091–1099. doi:10.1016/j.biopsych.2009.07.014

Grad, Hector, Blanco, Amalio, Georgas, James (1996) *Key Issues in Cross-Cultural Psychology*. Swets & Zeitlinger, Lisse.

Gray, E. K., & Watson, D. (2007). Assessing positive and negative affect via self-report. In J. A. Coan & J. J. B. Allen (Eds.), *Handbook of emotional elicitation and assessment* (pp. 171-183). New York: Oxford University Press.

Gudykunst, W. (2001). *Asian American ethnicity and communication.* Thousand Oaks, CA: Sage Publications.

Guillemin, F., Bombardier, C., Beaton, D. (1993). Cross-cultural adaptation of health-related quality of life measures: literature review and proposed guidelines. *Journal of Clinical Epidemiology, 46*(12), 1417–32.

Hackmann, A., Surawy, C., & Clark, D. M. (1998). Seeing yourself through others'eyes: a study of spontaneously occurring images in social phobia. *Behavioural and Cognitive Psychotherapy, 26*(01), 3-12.

Hadwin, J. A., Garner, M., & Perez-Olivas, G. (2006). The development of information processing biases in childhood anxiety: A review and exploration of its origins in parenting. *Clinical Psychology Review, 26*(7), 876-894.

Hambrick, J. P., Turk, C. L., Heimberg, R. G., Schneier, F. R., & Liebowitz, M. R. (2003). The experience of disability and quality of life in social anxiety disorder. *Depression and Anxiety, 18*(1), 46-50. doi:10.1002/da.10110

Hamdan, A. (2005). Women and education in Saudi Arabia: Challenges and achievements. *International Education Journal, 6*(1), 42-64.

Harter, S. (1982). The perceived competence scale for children. *Child development, 53*, 87-97.

Hayward, C., Wilson, K. A., Lagle, K., Kraemer, H. C., Killen, J. D., & Taylor, C. B. (2008). The developmental psychopathology of social anxiety in adolescents *Depression and Anxiety, 25*(3), 200-206. doi:10.1002/da.20289 [doi]

Hayward, Varady, S., Albano, A. M., Thienemann, M., Henderson, L., & Schatzberg, A. F. (2000). Cognitive-Behavioral Group Therapy for Social Phobia in Female Adolescents: Results of a Pilot Study. *Journal of the American Academy of Child & Adolescent Psychiatry, 39*(6), 721-726. doi:10.1097/00004583-200006000-00010

Heimberg, R. G., Liebowitz, M. R., Hope, D. A., & Schneier, F. R. (Eds.) (1995) *Social Phobia: Diagnosis, Assessment and Treatment.* Guilford Press.

Heine, S. J., Takata, T., & Lehman, D. R. (2000). Beyond self-presentation: Evidence for self-criticism among Japanese. *Personality and Social Psychology Bulletin, 26*(1), 71-78.

Heinrichs, N., & Hofmann, S. G. (2001). Information processing in social phobia: A critical review. *Clinical Psychology Review, 21*(5), 751-770. doi:10.1016/S0272-7358(00)00067-2

Heinrichs, N., Rapee, R. M., Alden, L. A., Bögels, S., Hofmann, S. G., Ja Oh, K., & Sakano, Y. (2006). Cultural differences in perceived social norms and social anxiety. *Behaviour Research and Therapy, 44*(8), 1187-1197. doi:10.1016/j.brat.2005.09.006

Hidalgo, R. B., Barnett, S. D., & Davidson, J. R. (2001). Social anxiety disorder in review: Two decades of progress *The International Journal of Neuropsychopharmacology / Official Scientific Journal of the Collegium Internationale Neuropsychopharmacologicum (CINP), 4*(3), 279-298.doi:10.1017/S1461145701002504

Higgins, E. T. (1987). Self-discrepancy: a theory relating self and affect. *Psychological Review*, *94*(3), 319.

Hilsdon, A.-M., & Rozario, S. (2006). *Special issue on Islam, gender and human rights.* Paper presented at the Women's studies international forum.

Hirsch, C. R., Clark, D. M., & Mathews, A. (2006). Imagery and Interpretations in Social Phobia: Support for the Combined Cognitive Biases Hypothesis. *Behavior Therapy*, *37*(3), 223-236. doi:10.1016/j.beth.2006.02.001

Hirshfeld-Becker, D. R. (2010). Familial and temperamental risk factors for social anxiety disorder. *New directions for child and adolescent development*, *2010*(127), 51-65.

Hofmann, S. G. (2007). Cognitive factors that maintain social anxiety disorder: A comprehensive model and its treatment implications. *Cognitive Behaviour Therapy*, *36*(4), 193-209.

Hofmann, S. G., & Barlow, D. H. (2002). Social phobia (social anxiety disorder). *Anxiety and its disorders: The nature and treatment of anxiety and panic*, *2*, 454-476.

Hofstede, G. (1980). *Culture's consequences.* Beverly Hills, CA: Sage.

Hofstede, G. (1991). Culture and Organizations. London: McGraw-Hill.

Hollander, E., Kwon, J., Weiller, F., Cohen, L., Stein, D. J., DeCaria, C., . . . Simeon, D. (1998). Serotonergic function in social phobia: comparison to normal control and obsessive–compulsive disorder subjects. *Psychiatry Research*, *79*(3), 213-217.

Hong, J. J., & Woody, S. R. (2007). Cultural mediators of self-reported social anxiety *Behaviour Research and Therapy, 45*(8), 1779-1789. doi:10.1016/j.brat.2007.01.011

Hsu, L., & Alden, L. (2007). Social anxiety in Chinese- and Europeanheritage students: The effect of assessment format and judgments of impairment. *Behavior Therapy, 38,* 120–131.

Hsu, L., Woody, S. R., Lee, H., Peng, Y., Zhou, X., & Ryder, A. G. (2012). Social anxiety among East asians in North America: East Asian socialization or the challenge of acculturation? *Cultural Diversity and Ethnic Minority Psychology, 18*(2), 181-191. doi:10.1037/a0027690

Hudson, J. L., & Rapee, R. M. (2000). The origins of social phobia. *Behavior Modification, 24*(1), 102-129.

Hudson, J. L., & Rapee, R. M. (2002). Parent-child interactions in clinically anxious children and their siblings. *Journal of Clinical Child and Adolescent Psychology, 31*(4), 548-555.

Huppert, J. D., Pasupuleti, R. V., Foa, E. B., & Mathews, A. (2007). Interpretation biases in social anxiety: Response generation, response selection, and self appraisals. *Behaviour Research and Therapy, 45*, 1501–1515.

Hyder, A. A., Wali, S. A., Khan, A. N., Teoh, N. B., Kass, N. E., & Dawson, L. (2004). Ethical review of health research: a perspective from developing country researchers. *Journal of Medical Ethics*, *30*(1), 68-72.

Ibrahim, A. S., & Al-Nafie, A. (1991) Perception and concern about sociocultural change and psychopathology in Saudi Arabia. *The Journal of Social Psychology*, *13*, 179-186.

Inderbitzen, H. M., Davies, C. A., McKeon, N. D. (2004). Investigating the construct validity of the SPAI-C comparing the sensitivity and specificity of the SPAI-C and the SAS-A. *Journal of Anxiety Disorders, ,* 547–560.

Inderbitzen-Nolan, H. M., & Walters, K. S. (2000). Social anxiety scale for adolescents: Normative data and further evidence of construct validity *Journal of Clinical Child Psychology, 29*(3), 360-371. doi:10.1207/S15374424JCCP2903_7

Inderbitzen, H. M., Walters, K. S., & Bukowski, A. L. (1997). The role of social anxiety in adolescent peer relations: Differences among sociometric status groups and

rejected subgroups. *Journal of Clinical Child Psychology, 26*(4), 338-348. doi:10.1207/s15374424jccp2604_2

Inderbitzen-Pisaruk, H., Clark, M. L., & Solano, C. H. (1992). Correlates of loneliness in midadolescence. *Journal of Youth and Adolescence, 21*(2), 151-167. doi:10.1007/BF01537334

Ingersoll, G. M. (1989). *Adolescents* (2nd edn.). Englewood Cliffs: Prentice Hall.

Ingles, C. J., Piqueras, J. A., Garcia-Fernandez, J. M., Garcia-Lopez, L. J., Delgado, B., & Ruiz-Esteban, C. (2010). Gender and age differences in the cognitive, psychophysiological, and behavioral responses of social anxiety in adolescence [Diferencias de genero y edad en respuestas cognitivas, psicofi siologicas y motoras de ansiedad social en la adolescencia] *Psicothema, 22*(3), 376-381.

Jamjoom, M. I. (2010). Female Islamic studies teachers in Saudi Arabia: A phenomenological study. *Teaching and Teacher Education, 26*(3), 547-558.

Johnson, P., & Duberley, J. (2000). *Understanding Management Research*. London: Sage Publications.

Juretić, J., & Živčić-Bećirevic, I. (2013). *Social anxiety, beliefs about expressing emotions and experiencing positive emotions*. INTECH Open Access Publisher.

Kagan, J. (1989). Temperamental contributions to social behavior. *American Psychologist, 44*(4), 668.

Kao, E. M., Nagata, D. K., & Peterson, C. (1997). Explanatory style, family expressiveness, and self-esteem among Asian American and European American college students. *The Journal of Social Psychology, 137,* 435–444. doi:10.1080/00224549709595459

Kashani, J. H., & Orvaschel, H. (1990). A community study of anxiety in children and adolescents. *The American journal of psychiatry*.

Kashani, J. H., Orvaschel, H., Rosenberg, T. K., & Reid, J. C. (1989). Psychopathology in a community sample of children and adolescents: A developmental perspective. *Journal of the American Academy of Child & Adolescent Psychiatry, 28*(5), 701-706. doi:10.1097/00004583-198909000-00010

Kashdan, T. B., & Farmer, A. S. (2014). Differentiating emotions across contexts: Comparing adults with and without social anxiety disorder using random, social interaction, and daily experience sampling. *Emotion.* doi:10.1037/a0035796

Kashdan, T. B., Farmer, A. S., Adams, L. M., Ferssizidis, P., McKnight, P. E., & Nezlek, J. B. (2013). Distinguishing healthy adults from people with social anxiety disorder: Evidence for the value of experiential avoidance and positive emotions in everyday social interactions. *Journal of Abnormal Psychology, 122,* 645–655. doi:10.1037/a0032733

Kashdan, T. B., & Herbert, J. (2001). Social Anxiety Disorder in Childhood and Adolescence: Current Status and Future Directions. *Clinical Child and Family Psychology Review*, *4*(1), 37-61. doi:10.1023/a:1009576610507

Kashdan, T. B., Morina, N., & Priebe, S. (2009). Post-traumatic stress disorder, social anxiety disorder, and depression in survivors of the Kosovo War: Experiential avoidance as a contributor to distress and quality of life. *Journal of Anxiety Disorders, 23,* 185–196. doi:10.1016/ j.janxdis.2008.06.006

Kashdan, T. B., & Roberts, J. E. (2004). Social anxiety's impact on affect, curiosity, and social self-efficacy during a high self-focus social threat situation. *Cognitive Therapy and Research, 28,* 119–141.

Kashdan, T. B., & Steger, M. F. (2006). Expanding the topography of social anxiety: An experience-sampling assessment of positive emotions, positive events, and emotion suppression. *Psychological Science, 17,* 120–128. doi:10.1111/j.1467-9280.2006.01674.x

Kashdan, T. B., Weeks, J. W., & Savostyanova, A. A. (2011). Whether, how, and when social anxiety shapes positive experiences and events: A self-regulatory framework and treatment implications. *Clinical Psychology Review, 31,* 786–799. doi:10.1016/j.cpr.2011.03.012

Katzelnick, D. J., Kobak, K. A., DeLeire, T., Henk, H. J., Greist, J. H., Davidson, J. R., . . . Helstad, C. P. (2001). Impact of generalized social anxiety disorder in managed care *The American Journal of Psychiatry, 158*(12), 1999-2007.

Keeley, M. L., & Storch, E. A. (2009). Anxiety disorders in youth. *Journal of pediatric nursing*, *24*(1), 26-40.

Keller, M. B. (2006). Social anxiety disorder clinical course and outcome: Review of Harvard/Brown anxiety research project (HARP) findings. *The Journal of Clinical Psychiatry, 67 Suppl 12*, 14-19.

Keltner, D., & Haidt, J. (2001). Social functions of emotions. In T. J. Mayne & G. A. Bonanno (Eds.), *Emotions: Current issues and future directions* (pp. 192–213). New York: Guilford Press.

Kendall, P. C., & Warman, M. J. (1996). Anxiety disorders in youth: Diagnostic consistency across DSM-III-R and DSM-IV. *Journal of Anxiety Disorders, 10*(6), 453-463. doi:10.1016/s0887-6185(96)00022-9

Kendler, K. S., Neale, M. C., Kessler, R. C., Heath, A. C., & Eaves, L. J. (1992). The genetic epidemiology of phobias in women: The interrelationship of agoraphobia, social phobia, situational phobia, and simple phobia. *Archives of General Psychiatry, 49*(4), 273.

Kessler, R. C. Berglund, P., Demler, O., Jin, R., Merikangas, K. R., & Walters, E. E. (2005). Lifetime prevalence and age-of-onset distributions of dsm-iv disorders in the national comorbidity survey replication. *Archives of general psychiatry, 62*(6), 593-602. doi:10.1001/archpsyc.62.6.593

Kessler RC, Foster MPH, Saunders WB, Stang PE (1995) Social consequences of psychiatric disorders I: educational attainment. *The American Journal of Psychiatry* ,152:71026–71032

Kessler, R. C., McGonagle, K. A., Zhao, S., Nelson, C. B., Highes, M., Eshleman, S., et al. (1994). Lifetime and 12-month prevalence of DSM-IIIR psychiatric disorders in the United States: Results from the national comorbidity survey. *Archives of General Psychiatry*, 51, 8–19. doi:10.1001/archpsyc.1994.03950010008002

Kessler, R. C., Stein, M. B., & Berglund, P. (1998). Social phobia subtypes in the national comorbidity survey. *The American Journal of Psychiatry, 155*(5), 613-619.

Khattab, N. (2003). Segregation, ethnic labour market and the occupational expectations of Palestinian students in Israel. *British Journal of Sociology, 54*(2), 259-285. doi:10.1080/0007131032000080230

Khoja, T.A., & Farid, S.M. (2000). *Saudi Arabia Family Health Survey 1996: Principal Report.* Riyadh: Ministry of Health.

Kim, U., Triandis, H. C., Kagistcibasi, C., Choi, S.-C., & Yoon, G. (Eds.). (1994) *Individualism and collectivism: Theory, methods, and applications.* Thousand Oaks, CA: Sage.

Kirsh, G., & Kuiper, N. (2002). Individualism and relatedness themes in the context of gender, depression. *Canadian Psychology, 43*, 76–90.

Kitayama, S. Mesquita, B., & Karasawa, M. (2006). Cultural Affordances and Emotional Experience: Socially Engaging and Disengaging Emotions in Japan and the United States. *Journal of Personality & Social Psychology 91,* 890–903.

Kitzrow, M. A. (2003). The mental health needs of today's college students: Challenges and recommendations. *Journal of Student Affairs Research and Practice, 41*(1), 167-181. doi:10.2202/1949-6605.1310

Kleinknecht, R. A., Dinnel, D. L., Kleinknecht, E. E., Hiruma, N., & Harada, N. (1997). Cultural factors in social anxiety: A comparison of social phobia symptoms and taijin kyofusho *Journal of Anxiety Disorders, 11*(2), 157-177. doi:10.1016/S0887-6185(97)00004-2

Kocovski, N. L., & Endler, N. S. (2000). Social anxiety, self-regulation, and fear of negative evaluation. *European Journal of Personality, 14*, 347–358.

Koot, H. M. (Ed.) (2001). The Study of Quality of Life: Concepts and Methods, *Quality of Life in Child and Adolescent Illness: Concepts, Methods and Findings*, Sussex, UK: Brunner-Routledge.

Koran, L. M., Thienemann, M. L., & Davenport, R. (1996). Quality of life for patients with obsessive-compulsive disorder. *The American Journal of Psychiatry, 153*(6), 783-788.

Kowalski, R. M., & Leary, M. R. (1990). Strategic self-presentation and the avoidance of aversive events: Antecedents and consequences of self-enhancement and self-depreciation. *Journal of Experimental Social Psychology, 26*, 322–336.

Kraidy, M. M. (2007). *Saudi Arabia, Lebanon and the changing Arab information order*.

Kraut, R., Olson, J., Banaji, M., Bruckman, A., Cohen, J., & Couper, M. (2004). Psychological research online: Report of board of scientific affairs' advisory group on the conduct of research on the internet. *American Psychologist, 59*, 105-117.

Kristensen, A. S., Mortensen, E. L., & Mors, O. (2009). The structure of emotional and cognitive anxiety symptoms. *Journal of anxiety disorders, 23*(5), 600-608.

Kroenke, K., Spitzer, R. L., Williams, J. B., Monahan, P. O., & Lowe, B. (2007). Anxiety disorders in primary care: Prevalence, impairment, comorbidity, and detection *Annals of Internal Medicine, 146*(5), 317-325.doi:10.7326/0003-4819-146-5-200703060-00004

Kwan, V. S., Bond, M. H., & Singelis, T. M. (1997). Pancultural explanations for life satisfaction: Adding relationship harmony to self-esteem. *Journal of Personality and Social Psychology, 73*(5), 1038-1051.

La Greca, A.M. (1999). *Manual for the social anxiety scales for children and adolescents* (Revised). Florida: University of Miami.

La Greca, A. M., & Lopez, N. (1998). Social Anxiety among Adolescence: Linkages with Peer Relations and Friendship. *Journal of Abnormal Child Psychology, 26*(2), 83-94. doi:10.1023/A:1022684520514

Lam, T.H., Shi, M.M., Ho, L.M., Stewart, S.M., Fan, S. (2002). Timing of pubertal maturation and heterosexual behaviour among Hong Kong Chinese adolescents. *Arch Sex Behav 31*, 359–366 26.

Lambert, M. C., Weisz, J. R., & Knight, F. (1989). Over-and undercontrolled clinic referral problems of Jamaican and American children and adolescents: The culture general and the culture specific. *Journal of Consulting and Clinical Psychology, 57*(4), 467.

Last, C. G., Perin, S., Hersen, M., & Kazdin, A. E. (1992) DSM-III-R anxiety disorders in children: sociodemographic and clinical characteristics. *Journal of the American Academy of Child & Adolescent Psychiatry, 31*, 1070–1076.

Last, C. G., Strauss, & C. C. (1990). School refusal in anxiety-disordered children and adolescents. *Journal of the American Academy of Child & Adolescent Psychiatry, 29*, 31–35.

Leary, M. R. (1983). A brief version of the Fear of Negative Evaluation Scale. *Personality and Social Psychology Bulletin*, *9*, 371–375.

Leary, M. R. (2010). Social anxiety as an early warning system: A refinement and extension of the self-presentation theory of social anxiety. *Social Anxiety: Clinical, Developmental, and Social Perspectives*, 471.

Leary, R. M., & Kowalski, N. R. (1995). *Social Anxiety*. New York: The Guilford Press.

Leary, M. R., Kowalski, R. M., & Campbell, C. D. (1988). Self-presentational concerns and social anxiety: The role of generalized impression expectancies. *Journal of Research in Personality, 22*(3), 308-321.

Ledley, D. R., & Heimberg, R. G. (2006). Cognitive vulnerability to social anxiety *Journal of Social and Clinical Psychology, 25*(7), 755-778. doi:10.1521/jscp.2006.25.7.755

Lee, S., Lee, M. T. Y., Kwok, K. (2005). A community-based telephone survey of social anxiety disorder in Hong Kong. *Journal of Affective Disorders, 88*, 183–186

Lepine, J. P., & Pelissolo, A. (2000). Why take social anxiety disorder seriously? *Depression and Anxiety, 11*(3), 87-92. doi:10.1002/(SICI)1520-6394(2000)11:3<87::AID-DA1>3.0.CO;2-9

Lev-Wiesel, R., & Alean, A. K. (1999). Attitude towards marriage and marital quality: A comparison among Israeli Arabs differentiated by religion. *Family Relations, 48*, 51-56.

Lewinsohn, P. M., Hops, H., Roberts, R. E., Seeley, J. R., & Andrews, J. A. (1993). Adolescent psychopathology: I. prevalence and incidence of depression and other *DSM-III—R* disorders in high school students. *Journal of Abnormal Psychology, 102*(1), 133-144. doi:10.1037/0021-843X.102.1.133

Lewis-Fernández, R., Hinton, D. E., Laria, A. J., Patterson, E. H., Hofmann, S. G., Craske, M. G., . . ., & Liao, B. (2010) Culture and the anxiety disorders: recommendations for DSM-V. *Depression and Anxiety, 27*(2), 212-229.

Lewis-Fernández, R., & Kleinman, A. (1994). Culture, personality, and psychopathology. *Journal of Abnormal Psychology, 103*(1), 67-71. doi:10.1037/0021-843X.103.1.67

Lieb, R., Wittchen, H., Höfler, M., Fuetsch, M., Stein, M. B., & Merikangas, K. R. (2000). Parental psychopathology, parenting styles, and the risk of social phobia in offspring: A prospective-longitudinal community study. *Archives of General Psychiatry, 57*(9), 859-866. doi:10.1001/archpsyc.57.9.859

Liebowitz, M. R., Gorman, J. M., Fyer, A. J., & Klein, D. F. (1985). Social phobia. Review of a neglected anxiety disorder. *Archives of General Psychiatry, 42*(7), 729-736.

Loukas, A., Paulos, S. K., & Robinson, S. (2005). Early adolescent social and overt aggression: Examining the roles of social anxiety and maternal psychological control. *Journal of Youth and Adolescence, 34*(4), 335-345. doi:10.1007/s10964-005-5757-2

Luger, E. (2002) *Hofstede's Cultural Dimensions*, Austria: University of Linz.

Luteijn, F., & Bouman, T. K. (1988). The concepts of depression, anxiety, and neuroticism in questionnaires. *European journal of personality, 2*(2), 113-120.

Lytton, H., & Romney, D. M. (1991). Parents' differential socialization of boys and girls: A meta-analysis. *Psychological Bulletin, 109*, 267–296.

Maccoby, E. E. (1990). Gender and relationships: A developmental account. *American Psychologist, 45*(4), 513-520. doi:10.1037/0003-066X.45.4.513

Mackey, D., & Storch, E. A. (2011). I,.New York: Springer.

Magee, Eaton, W. W., Wittchen, H., McGonagle, K. A., & Kessler, R. C. (1996). Agoraphobia, simple phobia, and social phobia in the national comorbidity survey. *Archives of General Psychiatry, 53*(2), 159-168. doi:10.1001/archpsyc.1996.01830020077009

Mahfouz, A. A., Abdelmoneim, I., Al-Gelban, K. S., Daffalla, A. A., Amri, H. A., Shaban, H., . . . & Mohammed, A. A. (2009). Adolescents'' Mental Health in Abha City, Southwestern Saudi Arabia. *The International Journal of Psychiatry in Medicine, 39*(2), 169-177.

Mahmoud, J. S. R. (2011). The Relationship of Anxiety, Coping, Thinking Style, Life Satisfaction, Social Support, and Selected Demographics among Young Adult College Students. [Doctoral Dissertation]. Paper 128. University of Kentucky.

Manassis, K., Mendlowitz, S. L., Scapillato, D., Avery, D., Fiksenbaum, L., Freire, M., . . . & Owens, M. (2002). Group and Individual Cognitive-Behavioral Therapy for Childhood Anxiety Disorders: A Randomized Trial. *Journal of the American Academy of Child & Adolescent Psychiatry, 41*(12), 1423-1430. doi:10.1097/00004583-200212000-00013

Marks, I.,& Dar, R. (2000). Fear reduction by psychotherapies. *The British Journal of Psychiatry, 176*(6), 507-511.

Marks, I. M., & Gelder, M. G (1966). Different ages of onset in varieties of phobia. *The American journal of psychiatry*.

Markus, H. R., & Kitayama, S. (1991). Culture and the self: Implications for cognition, emotion, and motivation. *Psychological Review, 98*(2), 224-253. doi:10.1037/0033-295X.98.2.224

Markus, H. R., & Kitayama, S. (1994). The cultural construction of self and emotion: Implications for social behavior. In S. Kitayama & H. R. Markus (Eds.), *Emotion and culture: Empirical studies of mutual influence* (pp. 89–130). Washington, DC: American Psychological Association.

Marshall, J. R. (1994). The diagnosis and treatment of social phobia and alcohol abuse. *Bulletin of the Menninger Clinic, 58,* 58-66.

Matsunaga, H., Kiriike, N., Matsui, T., Iwasaki, Y., & Stein, D. J. (2001). Taijin kyofusho: a form of social anxiety disorder that responds to serotonin reuptake inhibitors? *The International Journal of Neuropsychopharmacology, 4*(3), 231-237.

Mattick, R. P., & Clarke, J. C. (1998). Development and validation of measures of social phobia scrutiny fear and social interaction anxiety *Behaviour Research and Therapy, 36*(4), 455-470. doi:10.1016/S0005-7967(97)10031-6

Mauss, I., Wilhelm, F., & Gross, J. (2004). Is there less to social anxiety than meets the eye? Emotion experience, expression, and bodily responding. *Cognition and Emotion, 18*(5), 631-642.

McCarthy, A., Lee, K., Itakura, S., & Muir, D. W. (2006). Cultural display rules drive eye gaze during thinking. *Journal of Cross-Cultural Psychology, 37,* 717–722. doi:10.1177/0022022106292079

McCauley Ohannessian, C., Lerner, R. M., Lerner, J. V., & von Eye, A. (1999). Does self-competence predict gender differences in adolescent depression and anxiety? *Journal of Adolescence, 22*(3), 397-411. doi:10.1006/jado.1999.0231

McGee, R., Feehan, M., Williams, S., Partridge, F., Silva, P. A., & Kelly, J. (1990). DSM-III disorders in a large sample of adolescents. *Journal of the American Academy of Child & Adolescent Psychiatry, 29*(4), 611-619.

McNaughton, N., & Gray, J. A. (2000). Anxiolytic action on the behavioural inhibition system implies multiple types of arousal contribute to anxiety. *Journal of affective disorders, 61*(3), 161-176. doi:10.1016/s0165-0327(00)00344-x

Meleshko, K. G., & Alden, L. E. (1993). Anxiety and self-disclosure: Toward a motivational model. *Journal of Personality and Social Psychology, 64,* 1000–1009.

Mendlowicz, M. V., & Stein, M. B. (2000). Quality of life in individuals with anxiety disorders *The American Journal of Psychiatry, 157*(5), 669-682.

Mennin, D. S., Heimberg, R. G., Turk, C. L., & Fresco, D. M. (2002). Applying an emotion regulation framework to integrative approaches to generalized anxiety disorder. *Clinical Psychology: Science and Practice, 9,* 85–90.

Mennin, D. S., McLaughlin, K. A., & Flanagan, T. J. (2009). Emotion regulation deficits in generalized anxiety disorder, social anxiety disorder, and their co-occurrence. *Journal of Anxiety Disorders, 23,* 866– 871. doi:10.1016/j.janxdis.2009.04.006

Mersch, P. P. A., Emmelkamp, P. M. G., & Lips, C. (1991). Social phobia: individual response patterns and the long-term effects of behavioral and cognitive interventions. A follow-up study. *Behaviour Research and Therapy, 29*(4), 357-362.

Metcalfe, B. D. (2008). Women, management and globalization in the Middle East. *Journal of Business Ethics, 83*(1), 85-100.

Miers, A. C., Blöte, A. W., Bögels, S. M., & Westenberg, P. M. (2008). Interpretation bias and social anxiety in adolescents. *Journal of Anxiety Disorders, 22*(8), 1462-1471.

Mikulincer, M., Weller, A., & Florian, V. (1993). Sense of closeness to parents and family rules: A study of Arabs and Jewish youth in Israel. *International Journal of Psychology, 28,* 323–335.

Ministry of Economy and Planning, Kingdom of Saudi Arabia. (2010). The Ninth Development Plan (2011/2014). Available at: http://

Modell, S. (2005). Triangulation between case study and survey methods in management accounting research: An assessment of validity implications. *Management Accounting Research, 16*(2), 231-254.

Modell, S. (2009). In defence of triangulation: A critical realist approach to mixed methods research in management accounting. *Management Accounting Research, 20,* 208- 221.

Mohammadi, M. R., Ghanizadeh, A., Mohammadi, M., & Mesgarpour, B. (2006). Prevalence of social phobia and its comorbidity with psychiatric disorders in Iran. *Depression and anxiety*, *23*(7), 405-411.

Moraes, C. L., Hasselmann, M. H., & Reichenheim, M. E. (2002). Adaptação transcultural para o português do instrumento "Revised Conflict Tactics Scales (CTS2)" utilizado para identificar violência entre casais. *Cad Saúde Pública, 18*(1), 163-76.

Morrison, A. S., & Heimberg, R. G. (2013). Social anxiety and social anxiety disorder. *Annual Review of Clinical Psychology*, 9, 249 –274. doi:10.1146/annurev-clinpsy-050212-185631

Moscovitch, D. A. (2009). What is the core fear in social phobia? A new model to facilitate individualized case conceptualization and treatment. *Cognitive and Behavioral Practice, 16,* 123–134. doi:10.1016/j.cbpra .2008.04.002

Moscovitch, D. A., Hofmann, S. G., & Litz, B. T. (2005). The impact of self-construals on social anxiety: A gender-specific interaction *Personality and Individual Differences*, *38*(3), 659-672. doi:10.1016/j.paid.2004.05.021

Moscovitch, D. A., Hofmann, S. G., Suvak, M. K., & In-Albon, T. (2005). Mediation of changes in anxiety and depression during treatment of social phobia *Journal of Consulting and Clinical Psychology, 73*(5), 945-952. doi:2005-13740-017

Mountier, C.Y. & Stein, M.B. (1999). The History, Epidemiology, and Differential Diagnosis of Social Anxiety Disorder. *The Journal of Clinical Psychiatry*. *60*, 4-8.

Mullen, M. K., & Yi, S. (1995). The cultural context of talk about the past: Implications for the development of autobiographical memory. *Cognitive Development, 10,* 407–419.

Muris, P., Merckelbach, H., Schmidt, H., Gadet, B., & Bogie, N. (2001). Anxiety and depression as correlates of self-reported behavioural inhibition in normal adolescents. *Behaviour Research and Therapy*, *39*(9), 1051-1061.

Musa, C., Lépine, J. P., Clark, D., Mansell, W., & Ehlers, A. (2003). Selective attention in social phobia and the moderating effect of a concurrent depressive disorder. *Behaviour Research and Therapy, 41*(9), 1043-1054.

Myrick, H., & Brady, K. (2003). Current review of the comorbidity of affective, anxiety, and substance use disorders. *Current Opinion in Psychiatry*, *16*(3), 261-270.

Niblock, T. (2006). *Saudi Arabia: power, legitimacy and survival.* XXX: Routledge Curzon.

Niblock, T., & Malik, M. (2007). *The political economy of Saudi Arabia*. XXX: Taylor & Francis.

Nichols, K. A. (1974). Severe social anxiety. *British Journal of Medical Psychology, 47*(4), 301-306.

Nigg, J. T. (2006). Temperament and developmental psychopathology *Journal of Child Psychology and Psychiatry, and Allied Disciplines, 47*(3-4), 395-422. doi:JCPP1612

Nisbett, R. E. (2003). *The geography of thought: How Asians and Westerners think differently and why.* New York, NY: Free Press.

Nolen-Hoeksema, S., & Larson. J. (1992). *The worries of adolescent males and females*. Unpublished manuscript, Stanford, CA.: Stanford University.

Norasakkunkit, V., & Kalick, M. (2009). Experimentally detecting how cultural differences on social anxiety measures misrepresent cultural differences in emotional well-being. *Journal of Happiness Studies, 10*, 313-327.

Norasakkunkit, V., & Kalick, S. M. (2002). Culture, ethnicity, and emotional distress measures: The role of self-construal and self-enhancement. *Journal of Cross-Cultural Psychology, 33*(1), 56-70.

Ohaeri, J. U., Awadalla, A. W. (2009). The reliability and validity of the short version of the WHO Quality of Life Instrument in an Arab general population. *The Annals of Saudi Medicine, 29*, 98-104.

Öhman, A. (1986). Face the beast and fear the face: Animal and social fears as prototypes for evolutionary analyses of emotion *Psychophysiology*, *23*(2), 123-145. doi:10.1111/j.1469-8986.1986.tb00608.x

Okano, K. (1994). Shame and social phobia: A transcultural viewpoint. *Bulletin of the Menninger Clinic, 58*(3), 323-338.

Okazaki, S., & Sue, S. (1995). Methodological issues in assessment research with ethnic minorities. *Psychological Assessment, 7*, 367–375.

Okazaki, S. (1997). Sources of ethnic differences between Asian American and White American college students on measures of depression and social anxiety. *Journal of Abnormal Psychology, 106,* 52–60. doi:10.1037/0021-843X.106.1.52

Okazaki, S. (2002). Self-other agreement on affective distress scales in Asian Americans and White Americans. *Journal of Counseling Psychology, 49*, 428–437.

Okazaki, S., & Kallivayalil, D. (2002). Cultural norms and subjective disability as predictors of symptom reports among Asian Americans and White Americans. *Journal of Cross-Cultural Psychology, 33*(5), 482-491.

Okazaki, S., Liu, J. F., Longworth, S. L., & Minn, J. Y. (2002). Asian American-White American differences in expressions of social anxiety: A replication and extension. *Cultural Diversity & Ethnic Minority Psychology, 8,* 234–247.

Olatunji, B. O., Cisler, J. M., & Tolin, D. F. (2007). Quality of life in the anxiety disorders: A meta-analytic review. *Clinical Psychology Review, 27*(5), 572-581. doi:10.1016/j.cpr.2007.01.015

Olfson, M., Guardino, M., Struening, E., Schneier, F. R., Hellman, F., & Klein, D. F. (2000). Barriers to the treatment of social anxiety *The American Journal of Psychiatry, 157*(4), 521-527.

Olivares, J., Ruiz, J., Hidalgo, M. D., Garcıa-Lopez, L. J., Rosa, A. I., & Piqueras, J. A. (2005) Social Anxiety Scale for Adolescents (SAS-A): psychometric properties in a Spanish-speaking population. *International Journal of Clinical and Health Psychology, 5*, 85–97.

Olivares, J., Garcia-Lopez, L., Hidalgo, M. & Caballo, V. (2004) Relationships among social anxiety measures and their invariance. *European journal of psychological assessment,* 20, 3: 172-179.

Olivares, J., Vera-Villarroel, P., Rosa-Alcázar, A. I., Kuhne, W., Montesinos, L. & López-Pina, J. A. (2010). The Social Phobia and Anxiety Inventory: First Results of the Reliability and Structural Validity in Chilean Adolescents. *Universitas Psychologica, 9*(1) 149-160.

Omair, K. (2008). Women in management in the Arab context. *Education, Business and Society: Contemporary Middle Eastern Issues, 1*(2), 107-123.

Oosterbaan, D. B., Balkom, A. J. L. M., Spinhoven, P., Oppen, P., & Dyck, R. (2001). Cognitive therapy versus moclobemide in social phobia: a controlled study. *Clinical Psychology & Psychotherapy, 8*(4), 263-273.

Öst, L. G. (1987). Age of onset in different phobias. *Journal of Abnormal Psychology, 96*(3), 223.

Otto, M. W., Pollack, M. H., Maki, K. M., Gould, R. A., Worthington III, J. J., Smoller, J. W., & Rosenbaum, J. F. (2001). Childhood history of anxiety disorders among adults with social phobia: rates, correlates, and comparisons with patients with panic disorder. *Depression and Anxiety, 14*(4), 209-213.

Oyserman, D., Coon, H. M., & Kemmelmeier, M. (2002). Rethinking individualism and collectivism: Evaluation of theoretical assumptions and meta-analyses. *Psychological Bulletin, 128*(1), 3-72.

Page, A. C., Jones, R., & Wilson, F. (2004). Survey of West Australian anxiety support group participants' views on treatment processes and outomes. *Australian Psychologist, 39*(3), 208-211.

Patrick, D. L., & Erickson, P. (1988). What constitutes quality of life? Concepts and dimensions. *Clinical Nutrition, 7*(2), 53-63.

Patterson, M. L., & Ritts, V. (1997). Social and communicative anxiety: A review and meta-analysis. *Communication Yearbook, 20*, 263-304.

Peleg, O. (2009). Test anxiety, academic achievement, and self-esteem among Arab adolescents with and without learning disabilities. *Learning Disability Quarterly, 32*(1), 11-20.

Peleg, O. (2010). Worry about terror in Israel: Differences between Jewish and Arab adolescents and young adults *International Journal of Children''s Spirituality, 15*(3), 273-290. doi:10.1080/1364436X.2010.520304

Peleg, O. (2011) Social anxiety among Arab adolescents with and without learning disabilities in various educational frameworks. *British Journal of Guidance & Counseling* 39(2), 161-177

Peleg-Popko, O., & Dar, R. (2001). Marital quality, family patterns, and children's fears and social anxiety. *Contemporary Family Therapy, 23*(4), 465-487.

Peleg-Popko, O., Klingman, A., & Nahhas, I. A. (2003). Cross-cultural and familial differences between Arab and Jewish adolescents in test anxiety. *International*

Journal of Intercultural Relations, 27(5), 525-541. doi:10.1016/S0147-1767(03)00052-X

Peng, Z. W., Lam, L. T., & Jin, J. (2011). Factors associated with social interaction anxiety among Chinese adolescents. *East Asian Archives of Psychiatry*, *21*(4), 134-141.

Perowne, S., & Mansell, W. (2002). Social anxiety, self-focused attention, and the discrimination of negative, neutral and positive audience members by their non-verbal behaviours. *Behavioural and Cognitive Psychotherapy, 30,* 11–23.

Pilkonis, P. A. (1977). The behavioral consequences of shyness. *Journal of Personality, 45,* 596–611.

Pillai, P., & Chaudhary, N. (2009). Culture in minds and societies: Foundations of cultural psychology. *Psychological Studies, 54*(3), 238-239. doi:10.1007/s12646-009-0030-5

Pilling, S., Mayo-Wilson, E., Mavranezouli, I., Kew, K., Taylor, C., Clark, D. M., & Guideline Development Group. (2013). Recognition, assessment and treatment of social anxiety disorder: Summary of NICE guidance *BMJ (Clinical Research Ed.), 346*, f2541. doi:10.1136/bmj.f2541

Pollock, R. A., Rosenbaum, J. F., Marrs, A., Miller, B. S., & Biederman, J. (1995). Anxiety disorders of childhood: Implications for adult psychopathology. *The Psychiatric Clinics of North America, 18*(4).

Qureshi, N. A., Al-Habeeb, A. A., & Koenig, H. G. (2013). Mental health system in Saudi Arabia: An overview. *Neuropsychiatric disease and treatment*, *9*, 1121.

Ragheb, M., et al. (2007). Psychometeric properties of the Arabic version of social phobia inventory (SPIN). *Current Psychiatry,* 14(1):36-44.

Ramírez-Esparza, N., Gosling, S. D., & Pennebaker, J. W. (2008). Paradox lost: Unraveling the puzzle of Simpatía. *Journal of Cross-Cultural Psychology, 39*, 703-715. doi:10.1177/0022022108323786

Rapaport, M. H., Clary, C., Fayyad, R., & Endicott, J. (2005). Quality-of-life impairment in depressive and anxiety disorders *The American Journal of Psychiatry, 162*(6), 1171-1178. doi:162/6/1171

Rapee, R. M. (1993). The utilisation of working memory by worry. *Behaviour Research and Therapy, 31,* 617–620.

Rapee, R. M., & Heimberg, R. G. (1997). A cognitive-behavioral model of anxiety in social phobia.*Behaviour Research and Therapy, 35,* 741–756. doi:10.1016/S0005-7967(97)00022-3

Rapee, R. M. Schniering, C. A., & Hudson, J. L. (2009). Anxiety disorders during childhood and adolescence: origins and treatment. *Annual Review of Clinical Psychology, 5*, 311-341.

Rapee, R. M. & Spence, S. H. (2004). The etiology of social phobia: empirical evidence and an initial model. *Clinical Psychology Review, 24*(7), 737-767. doi:10.1016/j.cpr.2004.06.004

Rawas, H. O., Yates, P., Windsor, C., & Clark, R. A. (2012). Cultural challenges to secondary prevention: Implications for Saudi women. *Collegian, 19*(1), 51-57.

Reavis, R. (2005). Exploratory study of the relationship between social anxiety, depression genic style and coping skills in children. *The Sciences and Engineering, 65*(7-B), 22-37.

Reich, J., & Yates, W. (1988). Family history of psychiatric disorders in social phobia. *Comprehensive Psychiatry, 29*(1), 72-75. doi:10.1016/0010-440x(88)90039-9

Remenyi, D., Willians, B., Money, A. and Swrtz, E. (1998). *Doing Research in Business and Management: An Introduction to Process and Method*. London: Sage Publications.

Reno, R. R., & Kenny, D. A. (1992). Effects of self-consciousness and social anxiety on self-disclosure among unacquainted individuals: An application of the Social Relations Model. *Journal of Personality, 60,* 79–94.

Rimm-Kaufman, S. E., & Kagan, J. (2005). Infant predictors of kindergarten behavior: The contribution of inhibited and uninhibited temperament types. *Behavioral Disorders, 30*(4), 331.

Rose, A. J., & Rudolph, K. D. (2006). A review of sex differences in peer relationship processes: Potential trade-offs for the emotional and behavioral development of girls and boys *Psychological Bulletin, 132*(1), 98-131. doi:2006-00818-006

Rosella, J. D., & Albrecht, S. A. (1993). Toward an understanding of the health status of black adolescents: an application of the stresscoping framework. *Issues in Comprehensive Pediatric Nursing, 16,* 193–205.

Rosen, B. C., & Aneshensel, C. S. (1976). The chameleon syndrome: A social psychological dimension of the female sex role. *Journal of Marriage and the Family, 38*, 605-617.

Roth, M. (1969). Anxiety neuroses and phobic states. I. Clinical features. *British Medical Journal, 1*(5642), 489.

Rowe, D. C., Stever, C., Gard, J. M. C., Cleveland, H. H., Sanders, M. L., Abramowitz, A., . . . Waldman, I. D. (1998). The Relation of the Dopamine Transporter Gene (DAT1) to Symptoms of Internalizing Disorders in Children. *Behavior Genetics, 28*(3), 215-225. doi:10.1023/a:1021427314941

Rozin, P. (2003). Five potential principles for understanding cultural differences in relation to individual differences. *Journal of Research in Personality, 37*(4), 273-283. doi:10.1016/s0092-6566(02)00566-4

Rubin, H. C., Rapaport, M. H., Levine, B., Gladsjo, J. K., Rabin, A., Auerbach, M., . . . Kaplan, R. (2000). Quality of well being in panic disorder: The assessment of psychiatric and general disability. *Journal of Affective Disorders, 57*(1–3), 217-221. doi:10.1016/S0165-0327(99)00030-0

Rubin, K. H., Wojslawowicz, J. C., Rose-Krasnor, L., Booth-LaForce, C., & Burgess, K. B. (2006). The best friendships of shy/withdrawn children: Prevalence, stability, and relationship quality. *Journal of abnormal child psychology, 34*(2), 139-153.

Ruscio, A., Brown, T., Chiu, W., Sareen, J., Stein, M., & Kessler, R. (2008). Social fears and social phobia in the USA: Results from the National Comorbidity Survey Replication. *Psychological Medicine, 38*(1), 15-28.

Ryan, B., Scapens, R. W., & Theobald, M. (2002). *Research Method & Methodology in Finance & Accounting*. (2nd edn.). London: Thomson Learning.

Safren, S. A., Heimberg, R. G., Brown, E. J., & Holle, C. (1996). Quality of life in social phobia *Depression and Anxiety, 4*(3), 126-133. doi:10.1002/(SICI)1520-6394(1996)4:3<126::AID-DA5>3.0.CO;2-E

Samuda, R. J. (1998). *Psychological testing of American minorities: Issues and consequences* (2nd edn.). London: Sage.

Saunders, M., Lewis, P., & Thornhill, A. (2003). *Research Methods for Business Students*. (3rd edn.). Essex: Pearson Education.

Scaini, S., Belotti, R., & Ogliari, A. (2014). Genetic and environmental contributions to social anxiety across different ages: A meta-analytic approach to twin data. *Journal of anxiety disorders*, *28*(7), 650-656.

Scharf, M., & Hertz-Lazarowitz, R. (2003). Social networks in the school context: Effects of culture and gender. *Journal of Social and Personal Relationships, 20,* 843–858.

Schlenker, B. R., & Leary, M. R. (1982). Social anxiety and selfpresentation: A conceptualization model. *Psychological Bulletin, 92,* 641–669. doi:10.1037/0033-2909.92.3.641

Schmertz, S. K., Masuda, A., & Anderson, P. L. (2012). Cognitive processes mediate the relation between mindfulness and social anxiety within a clinical sample. *Journal of Clinical Psychology*, *68*(3), 362-371. doi:10.1002/jclp.20861 [doi]

Schneier, F. R., Heckelman, L. R., Garfinkel, R., Campeas, R., Fallon, B. A., Gitow, A., . . . & Liebowitz, M. R. (1994). Functional impairment in social phobia.*Journal of Clinical Psychiatry*. 55, 322–331.

Schneier, F. R., Johnson, J., Hornig, C. D., Liebowitz, M. R., & Weissman, M. M. (1992). Social phobia: Comorbidity and morbidity in an epidemiologic sample. *Archives of General Psychiatry*, *49*(4), 282-288. doi:10.1001/archpsyc.1992.01820040034004

Schreier, S. S., Heinrichs, N., Alden, L., Rapee, R. M., Hofmann, S. G., Chen, J., . . . & Bögels, S. (2010). Social anxiety and social norms in individualistic and collectivistic countries. *Depression and Anxiety*, *27*(12), 1128-1134.

Schwartz, C. E., Snidman, N., & Kagan, J. (1999). Adolescent social anxiety as an outcome of inhibited temperament in childhood. *Journal of the American Academy of Child & Adolescent Psychiatry*, *38*(8), 1008-1015.

Seginer, R., & Vermulst, A. (2002). Family environment, educational aspirations, and academic achievement in two cultural settings. *Journal of Cross-Cultural Psychology, 33,* 540–558.

Seidman, L. J., Faraone, S. V., Goldstein, J. M., Kremen, W. S., Horton, N. J., Makris, N., . . . Tsuang, M. T. (2002). Left hippocampal volume as a vulnerability indicator for schizophrenia: a magnetic resonance imaging morphometric study of nonpsychotic first-degree relatives. *Archives of general psychiatry*, *59*(9), 839.

Sekaran, U. (2000). *Research Methods for Business*. (3rd edn.). New York: John Wiley & Sons.

Shaw, D. S., Schonberg, M., Sherrill, J., Huffman, D., Lukon, J., Obrosky, D., & Kovacs, M. (2006). Responsivity to offspring's expression of emotion among childhood-onset depressed mothers. *Journal of Clinical Child and Adolescent Psychology, 35*(4), 490-503.

Simon, N. M., Otto, M. W., Korbly, N. B., Peters, P. M., Nicolaou, D. C., & Pollack, M. H. (2002). Quality of life in social anxiety disorder compared with panic disorder and the general population. *Psychiatric Services (Washington, D.C.), 53*(6), 714-718.

Singelis, T. M. (1994). The measurement of independent and interdependent self-construals. *Personality and Social Psychology Bulletin, 20,* 580–591. doi:10.1177/0146167294205014

Singelis, T. M., & Sharkey, W. F. (1995). Culture, self-construal, and embarrassability *Journal of Cross-Cultural Psychology, 26*(6), 622-644. doi:10.1177/002202219502600607

Singelis, T. M., Triandis, H. C., Bhawuk, D. P. S., & Gelfand, M. J. (1995) Horizontal and vertical dimensions of individualism and collectivism: A theoretical and measurement refinement. *Cross-Cultural Research, 29*(3), 241–275.

Skevington, S. M., Lotfy, M., & O'Connell, K. A. (2004). The World Health Organization's WHOQOL-BREF quality of life assessment: psychometric properties and results of the international field trial. A report from the WHOQOL group. *Quality of Life Research, 13*(2), 299-310.

Sommerfeldt, S. (). Genetics of behavioral inhibition and approach systems: A review of the literature. *Psychology at Berkeley*, 51.

Spector, I. P., Pecknold, J. C., & Libman, E. (2003). Selective attentional bias related to the noticeability aspect of anxiety symptoms in generalized social phobia. *Journal of Anxiety Disorders, 17*(5), 517-531.

Spence, S. H. (2003). Social skills training with children and young people: Theory, evidence and practice. *Child and Adolescent Mental Health, 8*(2), 84-96.

Spence, S. H., Donovan, C., & Brechman-Toussaint, M. (1999). Social skills, social outcomes, and cognitive features of childhood social phobia. *Journal of Abnormal Psychology, 108,* 211–221. doi:10.1037/0021- 843X.108.2.211

Spence, S. H., Donovan, C., & Brechman-Toussaint, M. (2000). The Treatment of Childhood Social Phobia: The Effectiveness of a Social Skills Training-based, Cognitive-behavioural Intervention, with and without Parental Involvement. *Journal of Child Psychology and Psychiatry, 41*(6), 713-726. doi:10.1111/1469-7610.00659

Spurr, J. M., & Stopa, L. (2002). Self-focused attention in social phobia and social anxiety. *Clinical Psychology Review, 22*(7), 947-975. doi:10.1016/S0272-7358(02)00107-1

Stein. D. J. (1993). Cross-cultural psychiatry and the DSM-IV. *Comprehensive Psychiatry, 34*(5), 322-329.

Stein, D. J., & Matsunaga, H. (2001). Cross-cultural aspects of social anxiety disorder *The Psychiatric Clinics of North America, 24*(4), 773-782.

Stein, M. B. (2000). Disability and quality of life in social phobia: Epidemiologic findings *American Journal of Psychiatry, 157*(10), 1606-1613. doi:10.1176/appi.ajp.157.10.1606

Stein, M. B., Fuetsch, M., Muller, N., Hofler, M., Lieb, R., & Wittchen, H. U. (2001). Social anxiety disorder and the risk of depression: a prospective community study of adolescents and young adults. *Archives of general psychiatry, 58*(3), 251.

Stein, M. B., Fyer, A. J., Davidson, J. R., Pollack, M. H., & Wiita, B. (1999). Fluvoxamine treatment of social phobia (social anxiety disorder): A double-blind, placebo-controlled study *The American Journal of Psychiatry, 156*(5), 756-760.

Stein, M. B., Roy-Byrne, P. P., Craske, M. G., Bystritsky, A., Sullivan, G., Pyne, J. M., . . . Sherbourne, C. D. (2005). Functional impact and health utility of anxiety disorders in primary care outpatients *Medical Care, 43*(12), 1164-1170. doi:00005650-200512000-00002

Stein, M. B., Tancer, M. E., Gelernter, C. S., & Vittone, B. J. (1990). Major depression in patients with social phobia. *The American journal of psychiatry*.

Stemberger, R. T., Turner, S. M., Beidel, D. C., & Calhoun, K. S. (1995). Social phobia: An analysis of possible developmental factors. *Journal of Abnormal Psychology, 104*(3), 526.

Stopa, L., & Clark, D. M. (2000). Social phobia and interpretation of social events. *Behaviour Research and Therapy, 38*(3), 273-283. doi:10.1016/s0005-7967(99)00043-1

Storch, E. A., Masia-Warner, C., Dent, H. C., Roberti, J. W., Fisher, P. H. (2004). Psychometric evaluation of the social anxiety scale for adolescents and the social phobia and anxiety inventory for children: construct validity a normative data. *Journal of Anxiety Disorders 18*, 665–679.

Strahan, E. Y. (2003). The effects of social anxiety and social skills on academic performance. *Personality and Individual Differences, 34*(2), 347-366. doi:10.1016/S0191-8869(02)00049-1

Strauman, T. J. (1989). Self-discrepancies in clinical depression and social phobia: Cognitive structures that underlie emotional disorders? *Journal of Abnormal Psychology, 98*(1), 14-22. doi:10.1037//0021-843X.98.1.14

Strauss, C. C., & Last, C. G. (1993). Social and simple phobias in children. *Journal of Anxiety Disorders, 7*(2), 141-152. doi:10.1016/0887-6185(93)90012-a

Sübaşı, G. (2005). Social Anxiety in Üniversity Students. *International Journal of Educational Reform, 14*(4), 405-414.

Susser, M. (2001). Glossary: causality in public health science. *Journal of Epidemiology and Community Health, 55*(6), 376-378.

Swartz, D. (1997). *Culture and power: The sociology of Pierre Bourdieu*: University of Chicago Press.

Tariq, Q. (2011). Close Friendship and Its Relationship with Self Esteem, Anxiety and Life Satisfaction. *Pakistan Journal of Psychology, 42*(1), 2–34.

Teachman, B. A., & Allen, J. P. (2007). Development of social anxiety: Social interaction predictors of implicit and explicit fear of negative evaluation. *Journal of Abnormal Child Psychology, 35*(1), 63-78. doi:10.1007/s10802-006-9084-1

Theall-Honey, L. A., & Schmidt, L. A. (2006). Do temperamentally shy children process emotion differently than nonshy children? Behavioral, psychophysiological, and gender differences in reticent preschoolers. *Developmental Psychobiology, 48*(3), 187-196.

Thomas, S. E., Randall, C. L., & Carrigan, M. H. (2003). Drinking to cope in socially anxious individuals: A controlled study. *Alcoholism: Clinical and Experimental Research, 27*(12), 1937-1943.

Thompson, M. J. J., Raynor, A., Cornah, D., Stevenson, J., & Sonuga- Barke, E. J. S. (2002). Parenting behaviour described by mothers in a general population sample. *Child: Care, Health and Development, 28,* 149–155.

Thompson, S., & Rapee, R. M. (2002). The effect of situational structure on the social performance of socially anxious and non-anxious participants. *Journal of Behavior Therapy and Experimental Psychiatry, 33,* 91–102.

Tian, Q. (2011; 2013). Social anxiety, motivation, self-disclosure, and computer-mediated friendship: A path analysis of the social interaction in the blogosphere *Communication Research, 40*(2), 237-260. doi:10.1177/0093650211420137

Traube, D., V. Dukay, et al. (2010) Cross-cultural adaptation of the Child Depression Inventory for use in Tanzania with children affected by HIV. *Vulnerable Children and Youth Studies 5*(2): 174-187.

Triandis, H. C. (1989). The self and social behavior in differing cultural contexts. *Psychological Review, 96,* 506 –520. doi:10.1037/0033- 295X.96.3.506

Triandis, H. C., & Suh, E. M. (2002). Cultural influences on personality. *Annual review of psychology, 53*(1), 133-160.

Trower, P., & Gilbert, P. (1989). New theoretical conceptions of social anxiety and social phobia *Clinical Psychology Review, 9*(1), 19-35. doi:10.1016/0272-7358(89)90044-5

Tsao, J. C. I., Mystkowski, J. L., Zucker, B. G., & Craske, M. G. (2005). Impact of cognitive-behavioral therapy for panic disorder on comorbidity: a controlled investigation. *Behaviour Research and Therapy, 43*(7), 959-970.

Turk, C. L., Heimberg, R. G., Luterek, J. A., Mennin, D. S., & Fresco, D. M. (2005). Emotion dysregulation in generalized anxiety disorder: A comparison with social anxiety disorder. *Cognitive Therapy and Research, 29,* 89–106. doi:10.1007/s10608-005-1651-1

Turk, C. L., Heimberg, R. G., Orsillo, S. M., Holt, C. S., Gitow, A., Street, L. L., . . . Liebowitz, M. R. (1998). An investigation of gender differences in social phobia. *Journal of Anxiety Disorders, 12*(3), 209-223. doi:10.1016/S0887-6185(98)00010-3

Turner, S. M., Beidel, D. C., & Larkin, K. T. (1986). Situational determinants of social anxiety in clinic and nonclinic samples: Physiological and cognitive correlates.

Journal of Consulting and Clinical Psychology, 54(4), 523-527. doi:10.1037//0022-006X.54.4.523

Turner, S. M., Beidel, D. C., Dancu, C. V., & Keys, D. J. (1986). Psychopathology of social phobia and comparison to avoidant personality disorder. *Journal of Abnormal Psychology, 95*(4), 389-394.

Van Ameringen, M., Allgulander, C., Bandelow, B., Greist, J. H., Hollander, E., Montgomery, S. A., . . . Stein, D. J. (2003). WCA recommendations for the long-term treatment of social phobia. *CNS Spectrums*.

Van Ameringen, M., Mancini, C., & Farvolden, P. (2003). The impact of anxiety disorders on educational achievement. *Journal of Anxiety Disorders, 17*(5), 561-571. doi:10.1016/S0887-6185(02)00228-1

Van Ameringen, M., Mancini, C., & Oakman, J. M. (1998). The relationship of behavioral inhibition and shyness to anxiety disorder. *The Journal of nervous and mental disease, 186*(7), 425.

Van Ameringen, M., Oakman, J., Mancini, C., Pipe, B., & Chung, H. (2004). Predictors of response in generalized social phobia: effect of age of onset. *Journal of clinical psychopharmacology, 24*(1), 42.

Van de Ven, P., Rawstorne, P., Treloar, C., Epidemiology, N. C. i. H., Research, C., Research, N. C. i. H. S., . . . Society. (2002). *HIV/AIDS, hepatitis C & related diseases in Australia: Annual report of behaviour 2002.* National Centre in HIV Social Research.

Van Oort, F. V., Greaves-Lord, K., Ormel, J., Verhulst, F. C., & Huizink, A. C. (2011). Risk indicators of anxiety throughout adolescence: The TRAILS study. *Depression and Anxiety, 28*(6), 485-494. doi:10.1002/da.20818 [doi]

Van Velzen, C. J. M., Emmelkamp, P. M. G., & Scholing, A. (2000). Generalized social phobia versus avoidant personality disorder: Differences in psychopathology, personality traits, and social and occupational functioning. *Journal of Anxiety Disorders, 14*(4), 395-411.

Velting, O. N., & Albano, A. M. (2001). Current Trends in the Understanding and Treatment of Social Phobia in Youth. *Journal of Child Psychology and Psychiatry, 42*(1), 127-140. doi:10.1111/1469-7610.00705

Verger, P., Guagliardo, V., Gilbert, F., Rouillon, F., & Kovess-Masfety, V. (2010). Psychiatric disorders in students in six french universities: 12-month prevalence,

comorbidity, impairment and help-seeking. *Social Psychiatry and Psychiatric Epidemiology, 45*(2), 189-199. doi:10.1007/s00127-009-0055-z

Vogel, F. (1993). *Islamic law and legal system studies of Saudi Arabia*. [Ph.D. Dissertation]. Harvard University, USA.

Voncken, M. J., Alden, L. E., & Bögels, S. M. (2006). Hiding anxiety versus acknowledgment of anxiety in social interaction: Relationship with social anxiety. *Behaviour Research and Therapy, 44*(11), 1673-1679. doi:10.1016/j.brat.2005.11.005

Voncken, Bögels, S., & Peeters, F. (2007). Specificity of interpretation and judgemental biases in social phobia versus depression. *Psychology and Psychotherapy: Theory, Research and Practice, 80*(3), 443-453.

Vriends, N., Becker, E. S., Meyer, A., Williams, S. L., Lutz, R., & Margraf, J. (2007). Recovery from social phobia in the community and its predictors: Data from a longitudinal epidemiological study. *Journal of Anxiety Disorders*, *21*(3), 320-337.

Vygotsky, L. S. (1978). *Mind in society: The development of higher mental processes* (M. Cole, V. John-Steiner, S. Scribner, & E. Souberman, Eds. & Trans.). Cambridge, MA: Harvard University Press.

Wallace, S. T., & Alden, L. E. (1997). Social phobia and positive social events: The price of success. *Journal of Abnormal Psychology, 106*(3), 416.

Wallander, J. L. (2001). Theoretical and Developmental Issues in Quality of Life for Children and Adolescents. *Quality of Life in Child and Adolescent Illness: Concepts, Methods and Findings.* Sussex, UK: Brunner-Routledge.

Watson, D., & Friend, R. (1969). Measurement of social-evaluative anxiety. *Journal of consulting and clinical psychology, 33*(4), 448-457

Watson, D., Gamez, W., & Simms, L. J. (2005). Basic dimensions of temperament and their relation to anxiety and depression: A symptom-based perspective. *Journal of Research in Personality, 39*(1), 46-66.

Watson, M., James-Roberts, I. S., Ashley, S., Tilney, C., Brougham, B., Edwards, L., . . . Romer, G. (2005). Factors associated with emotional and behavioural problems among school age children of breast cancer patients. *British journal of cancer, 94*(1), 43-50.

Weems, C. F., & Stickle, T. R. (2005). Anxiety disorders in childhood: Casting a nomological net. *Clinical Child and Family Psychology Review*, *8*(2), 107-134.

Weilage, M., & Hope, D. A. (1999). Self-discrepancy in social phobia and dysthymia. *Cognitive Therapy and Research, 23*(6), 637-650. doi:10.1023/A:1018788925223

Weissman, M. M., Bland, R. C., Canino, G. J., Faravelli, C., Greenwald, S., Hwu, H. G., . . . Lellouch, J. (1996). Cross-national epidemiology of major depression and bipolar disorder. *JAMA: The Journal of the American Medical Association, 276*(4), 293-299. doi:10.1001/jama.1996.03540040037030

Weissman, M. M., Bland, R., Canino, G., Greenwald, S., Lee, C., Newman, S., . . . Wickramaratne, P. (1996). The cross-national epidemiology of social phobia: a preliminary report. *International clinical psychopharmacology, 11*, 9.

Weisz, J. R., Sigman, M., Weiss, B., & Mosk, J. (1993). Parent reports of behavioral and emotional problems among children in Kenya, Thailand, and the United States. *Child development, 64*(1), 98-109.

Weisz, J. R., Suwanlert, S., Chaiyasit, W., & Walter, B. R. (1987). Over- and Undercontrolled Referral Problems among Children and Adolescents from Thailand and the United States: The Wat and Wai of Cultural Differences. *Journal of Consulting and Clinical Psychology, 55*(5), 719.

Weller, A., Florian, V., & Mikulincer, M. (1995). Adolescents' reports of parental division of power in a multicultural society. *Journal of Research on Adolescence*, *5*(4), 413-429.

Wells A, McMillan D. (2004). Psychological treatment of social phobia. *Psychiatry*, 3(5), 56-60. doi:10.1383/psyt.3.5.56.33968

Wells A. (2001). The maintenance and treatment of social phobia: A Cognitive Approach. *Journal of the Norwegian Psychological Association, 38,* 717-724.

Wells, A., Clark, D. M., Salkovskis, P., & Ludgate, J. (1995). Social phobia: The role of in-situation safety behaviors in maintaining anxiety and negative beliefs. *Behavior Therapy*, *26*, 153–161.

Wells, A., & Papageorgiou, C. (1998). Social phobia: Effects of external attention on anxiety, negative beliefs, and perspective taking. *Behavior Therapy, 29,* 357–370.

Wells, A., White, J., & Carter, K. (1997). Attention training: effects on anxiety and beliefs in panic and social phobia. *Clinical Psychology & Psychotherapy, 4*(4), 226-232.

Wells, J. E., Browne, M. A., Scott, K. M., McGee, M. A., Baxter, J., Kokaua, J., & New Zealand Mental Health Survey Research Team. (2006). Prevalence, interference with life and severity of 12 month DSM-IV disorders in Te Rau Hinengaro: The New Zealand mental health survey *The Australian and New Zealand Journal of Psychiatry, 40*(10), 845-854. doi:10.1080/j.1440-1614.2006.01903.x

Wenzel, A. (2004). Schema content for threat in social phobia. *Cognitive therapy and research, 28*(6), 789-803.

Werner, K., Goldin, P., Ball, T., Heimberg, R., & Gross, J. (2011). Assessing emotion regulation in social anxiety disorder: The Emotion Regulation Interview. *Journal of Psychopathology and Behavioral Assessment, 33,* 346–354. doi:10.1007/s10862-011-9225-x

Williams, M., & May, T. (1996). *Introduction to the Philosophy of Social Research*. London: UCL Press.

Wittchen, H., & Beloch, E. (1996). The impact of social phobia on quality of life. *International clinical psychopharmcology, 11*(3), 15-23.

Wittchen, H., Stein, M., & Kessler, R. (1999). Social fears and social phobia in a community sample of adolescents and young adults: Prevalence, risk factors and co-morbidity. *Psychological Medicine, 29*(2), 309-323.

Wittchen, H. U. (1994). Reliability and validity studies of the WHO--composite international diagnostic interview (CIDI): A critical review. *Journal of Psychiatric Research, 28*(1), 57-84. doi:10.1016/0022-3956(94)90036-1

Wittchen, H. U., & Fehm, L. (2003). Epidemiology and natural course of social fears and social phobia *Acta Psychiatrica Scandinavica, 108*(s417), 4-18. doi:10.1034/j.1600-0447.108.s417.1.x

Wittchen, H. U., Fuetsch, M., Sonntag, H., Müller, N., & Liebowitz, M. (2000). Disability and quality of life in pure and comorbid social phobia. Findings from a controlled study *European Psychiatry, 15*(1), 46-58. doi:10.1016/S0924-9338(00)00211-X

Woody, S. R. (1996). Effects of focus of attention on anxiety levels and social performance of individuals with social phobia. *Journal of Abnormal Psychology, 105*, 61–69.

World Health Organization (1993). *The ICD-10 Classification of Mental and Behavioral Disorders: Diagnostic Criteria for Research*. Geneva, Switzerland, World Health Organization.

World Health Organization (2001). *The World Health Report, 2001*. Geneva, Switzerland: World Health Organization.

Yamani, M. (2000). *Changed identities: The challenge of the new generation in Saudi Arabia*: Royal Institute of International Affairs, Middle East Programme.

Yanos, P. T., Rosenfield, S., & Horwitz, A. V. (2001). Negative and supportive social interactions and quality of life among persons diagnosed with severe mental illness. *Community Mental Health Journal, 37*(5), 405-419.

Yao, S., Zou, T., Zhu, X., Abela, J. R. Z., Auerbach, R. P., & Tong, X. (2006). Reliability and validity of the Chinese version of the multidimensional anxiety scale for children among Chinese secondary school students. *Child Psychiatry & Human Development, 38*, 1–16.

Yeh, M., & Weisz, J. R. (2001). Why are we here at the clinic? Parent–child (dis) agreement on referral problems at outpatient treatment entry. *Journal of Consulting and Clinical Psychology, 69*(6), 1018.

Yin, R. K. (1994). *Case Study Research: Design and Methods*. (2nd edn.). London: Sage Publications.

Yonkers, K. A., Bruce, S. E., Dyck, I. R., & Keller, M. B. (2003). Chronicity, relapse, and illness—course of panic disorder, social phobia, and generalized anxiety disorder: Findings in men and women from 8 years of follow-up. *Depression and anxiety, 17*(3), 173-179.

Yovetich, N. A., Dale, J. A., & Hudak, M. A. (1990). Benefits of humor in reduction of threat-induced anxiety. *Psychological Reports, 66*, 51–58.

Zane, N. W. S., Sue, S., Hu, L.-T., & Kwon, J.-H. (1991). Asian-American assertion: A social learning analysis of cultural differences. *Journal of Counseling Psychology, 38*, 63–70. doi:10.1037/0022-0167.38.1.63

Zeidner, M. (1989). Social anxiety among Jewish and Arab students in Israel. *The Journal of Social Psychology, 129*(3), 415-418. doi:10.1080/00224545.1989.9712058

Zhou, X., Xu, Q., Ingles, C, Hidalgo, M., & La Greca, A. (2008). Reliability and validity of the Chinese version of the social anxiety scale for adolescents. *Child Psychiatry & Human Development, 39*, 1850-200.

Zimmermann, G., Pin, M. A., Krenz, S., Bouchat, A., Favrat, B., Besson, J., & Zullino, D. F. (2004). Prevalence of social phobia in a clinical sample of drug dependent patients. *Journal of affective disorders, 83*(1), 83-87. doi:10.1016/j.jad.2004.05.003

APPENDICES

Appendix 1: English version of the scales

1. SAS-A (Adolescents)

This is not a test; there are no right or wrong answers. Please answer each item as honestly as you can.

Use these numbers to show HOW MUCH YOU FEEL something is true for you:

1 = Not at all 2 = Hardly ever 3 = Sometimes 4 = Most of the time 5 = All the time

Now let's try these sentences first. How much does each describe how you feel?

I like summer vacation..... 1 2 3 4 5

I like to eat spinach..... 1 2 3 4 5

1.	I worry about doing something new in front of others.....	1 2 3 4 5
2.	I like to do things with my friends.....	1 2 3 4 5
3.	I worry about being teased.....	1 2 3 4 5
4.	I feel shy around people I don't know.....	1 2 3 4 5
5.	I only talk to people I know really well.....	1 2 3 4 5
6.	I feel that peers talk about me behind my back.....	1 2 3 4 5
7.	I like to read.....	1 2 3 4 5
8.	I worry about what others think of me.....	1 2 3 4 5

9.	I'm afraid that others will not like me.....	1 2 3 4 5
10.	I get nervous when I talk to peers I don't know very well.....	1 2 3 4 5
11.	I like to play sports.....	1 2 3 4 5
12.	I worry about what others say about me.....	1 2 3 4 5
13.	I get nervous when I meet new people.....	1 2 3 4 5
14.	I worry that others don't like me.....	1 2 3 4 5
15.	I am quiet when I'm with a group of people.....	1 2 3 4 5
16.	I like to do things by myself.....	1 2 3 4 5
17.	I feel that others make fun of me.....	1 2 3 4 5
18.	If I get into an argument, I worry that the other person will not like me.....	1 2 3 4 5
19.	I'm afraid to invite others to do things with me because they might say no	1 2 3 4 5
20.	I feel nervous when I'm around certain people.....	1 2 3 4 5
21.	I feel shy even with peers I know very well.....	1 2 3 4 5
22.	It is hard for me to ask others to do things with me.....	1 2 3 4 5

2. Quality of Life

Please answer all questions in this questionnaire. There are no right or wrong answers. If you have difficulty answering any of these questions, please ask the person who has given you the questionnaire. We would like to thank you for your cooperation in completing this study, which concerns your quality of life. Before beginning to answer all items of the questionnaire, we would first like you to answer general questions about yourself by putting mark (√) in the appropriate box or filling in the empty space:

- Age …….. - School ……..

- Gender ☐ 1. Male ☐ 2. Female

The following questions ask how you feel about your quality of life, health, or other areas of your life. I will read out each question to you, along with the response options. Please choose the answer that appears most appropriate. If you are unsure about which response to give to a question, the first response you think of is often the best one.

	Very poor	Poor	Neither poor nor good	Good	Very good
1. How would you rate your quality of life?	1	2	3	4	5

	Very dissatisfied	Dissatisfied	Neither satisfied nor dissatisfied	Satisfied	Very satisfied
2. How satisfied are you with your health?	1	2	3	4	5

The following questions ask about how much you have experienced certain things in the last two weeks:

	Not at all	A little	A moderate amount	Very much	An extreme amount
3. To what extent do you feel that physical pain prevents you from doing what you need to do?	1	2	3	4	5
4. How much do you need any medical treatment to function in your daily life?	1	2	3	4	5
5. How much do you enjoy life?	1	2	3	4	5
6. To what extent do you feel your life to be meaningful?	1	2	3	4	5

	Not at all	A little	A moderate amount	Very much	Extremely
7. How well are you able to concentrate?	1	2	3	4	5
8. How safe do you feel in your daily life?	1	2	3	4	5
9. How healthy is your physical environment?	1	2	3	4	5

	Not at all	A little	Moderately	Mostly	Completely
10. Do you have enough energy for everyday life?	1	2	3	4	5
11. Are you able to accept your bodily appearance?	1	2	3	4	5
12. Have you enough money to meet your needs?	1	2	3	4	5
13. How available to you is the information that you need in your day-to-day life?	1	2	3	4	5
14. To what extent do you have the opportunity for leisure activities?	1	2	3	4	5

The following questions ask about how you have felt satisfied about various areas of your life during the last two weeks:	Very poor	Poor	Neither poor nor good	Good	Very good
15. How well are you able to get around?	1	2	3	4	5

	Very dissatisfied	Dissatisfied	Neither satisfied nor dissatisfied	Satisfied	Very satisfied
16. How satisfied are you with your sleep?	1	2	3	4	5

17. How satisfied are you with your ability to perform your daily living activities?	1	2	3	4	5
18. How satisfied are you with your capacity for work?	1	2	3	4	5
19. How satisfied are you with yourself?	1	2	3	4	5
20. How satisfied are you with your personal relationships?	1	2	3	4	5
21. How satisfied are you with your sexual feeling?	1	2	3	4	5
22. How satisfied are you with the support you get from your friends?	1	2	3	4	5
23. How satisfied are you with the conditions of your living place?	1	2	3	4	5
24. How satisfied are you with your access to health services?	1	2	3	4	5
25. How satisfied are you with your transport?	1	2	3	4	5

The following question refers to how often you have felt or experienced certain things in the last two weeks:

	Never	Seldom	Quite often	Very often	Always

26. How often do you have negative feelings such as blue mood, despair, anxiety, depression?	1	2	3	4	5

3. Brief Fear of Negative Evaluation Scale

Read each of the following statements carefully and indicate how characteristic it is of you according to the following scale:

1 = Not at all characteristic of me

2 = slightly characteristic of me

3 = moderately characteristic of me

4 = Very characteristic of me

5 = extremely characteristic of me

_____ 1. I worry about what other people will think of me even when I know it doesn't make any difference.

_____ 2. I am unconcerned even if I know people are forming an unfavorable impression of me.

_____ 3. I am frequently afraid of other people noticing my shortcomings.

_____ 4. I rarely worry about what kind of impression I am making on someone.

_____ 5. I am afraid others will not approve of me.

_____ 6. I am afraid that people will find fault with me.

_____ 7. Other people's opinions of me do not bother me.

_____ 8. When I am talking to someone, I worry about what they may be thinking about me.

_____ 9. I am usually worried about what kind of impression I make.

_____ 10. If I know someone is judging me, it has little effect on me.

_____ 11. Sometimes I think I am too concerned with what other people think of me.

_____ 12. I often worry that I will say or do the wrong things.

4. Social Interaction Anxiety Scale (SIAS)

Instructions: For each item, please circle the number to indicate the degree to which you feel the statement is characteristic or true for you. The rating scale is as follows:

0 = **Not at all** characteristic or true of me.

1 = **slightly** characteristic or true of me.

2 = **moderately** characteristic or true of me.

3 = **Very** characteristic or true of me.

4 = **Extremely** characteristic or true of me.

1. I get nervous if I have to speak with someone in authority (teacher, boss, etc.)..... 0 1 2 3 4

2. I have difficulty making eye contact with others.....0 1 2 3 4

3. I become tense if I have to talk about myself or my feelings. 0 1 2 3 4

4. I find it difficult to mix comfortably with the people I work with..... 0 1 2 3 4

5. I find it easy to make friends my own age..... 0 1 2 3 4

6. I tense up if I meet an acquaintance in the street..... 0 1 2 3 4

7. When mixing socially, I am uncomfortable..... 0 1 2 3 4

8. I feel tense if I am alone with just one other person..... 0 1 2 3 4

9. I am at ease meeting people at parties, etc..... 0 1 2 3 4

10. I have difficulty talking with other people..... 0 1 2 3 4

11. I find it easy to think of things to talk about..... 0 1 2 3 4

12. I worry about expressing myself in case I appear awkward..... 0 1 2 3 4

13. I find it difficult to disagree with another's point of view..... 0 1 2 3 4

14. I have difficulty talking to attractive persons of the opposite sex..... 0 1 2 3 4

15. I find myself worrying that I won't know what to say in social situations..... 0 1 2 3 4

16. I am nervous mixing with people I don't know well..... 0 1 2 3 4

17. I feel I'll say something embarrassing when talking..... 0 1 2 3 4

18. When mixing in a group, I find myself worrying I will be ignored..... 0 1 2 3 4

19. I am tense mixing in a group..... 0 1 2 3 4

20. I am unsure whether to greet someone I know only slightly..... 0 1 2 3 4

5. Social Phobia Inventory (SPIN)

Please read each statement and select a number 0,1,2,3 or 4 which indicates how much the statement applied to you over the past week. There are no right or wrong answers. Do not spent too much time on any one statement. This assessment is not intended to be a diagnosis. If you are concerned about your results in any way, please speak with a qualified health professional.

0 = Not at all **1 = A little bit** **2 = Somewhat** **3 = Very much** **4 = Extremely**

No	Items	1	2	3	4	5
1	I am afraid of people in authority					
2	I am bothered by blushing in front of people					
3	Parties and social event scare me					
4	I avoid talking to people I don't know					
5	Being criticized scares me o lot					
6	I avoid doing things or speaking to people for fear of embarrassment					
7	Sweating in front of people causes me distress					
8	I avoid going to parties					
9	I avoid activities in which I am the centre of attention					
10	Talking to strangers scares me					
11	I avoid having to give speeches.					
12	I would do anything to avoid being criticized					
13	Heart palpitations bother me when I am around people					
14	I am afraid of doing things when people might be watching					
15	Being embarrassed or looking stupid are among my worst fears					
16	I avoid speaking to anyone in authority					
17	Trembling or shaking in front of others is distressing to me					

6. Self-Referent Adjective Questionnaire (SRAQ) PI & PR Scoring Key

Directions: Please indicate how closely each of the below words describe you by putting a rating in the box beside each word, using the following scale:

0 = not at all

2 = a moderate amount

4 = very much

2. Generous			24. Supporting	
3. Understanding			25. Warm	
4. Self-determined			26. Aiding	
5. Intelligent			27. Non-Conforming	
6. Attached			28. Loyal	
7. Leading			29. Sympathetic	
8. Hospitable			30. Competent	
9. Striving			31. Affectionate	
10. Gracious			32. Ingenious	
11. Powerful			33. Self-Disciplined	
12. Productive			34. Friendly	
13. Self-controlled			35. Self-Reliant	
14. Attaining			36. Chummy	
15. Intimate			37. Companionable	
16. Autonomous			38. Determined	
17. Unselfish			39. Helpful	
18. Appreciative			40. Independent	
19. Comforting			41. Excelling	
20. Masterful			42. Orderly	
21. Kind			43. Purposeful	
22. Achieving			44. Tender	

Appendix 2: Comparing between original and back-translated scales

Social Phobia Inventory (SPIN)

No	Original item	Back-translated item	Reviewer 's comments (1)	Reviewer's Comments (2)
1	I am afraid of people in authority	I feel fear towards people in authority situations.	Probably ok	Perhaps using the word 'situations' implies personal dominance rather than actual official position. Could position rather than situation be implied?
2	I am bothered by blushing in front of people	I got upset in front of people when I'm shy.	Sort of ok	Difficult this one, because we are looking at discomfort caused by physiological changes being observed. Change 'got' to' get'
9	I avoid activities in which I am the centre of attention	I avoid activities which put me in advertency situation	Not sure of the word advertency	Advertency situation, yes it make sense, but I have not seen this word used before in this context
12	I would do anything to avoid being criticized	I can do anything to avoid criticism	Not quite correct	
13	Heart palpitations bother me when I am around people	My heart fast beatings make me feel upset in front of people	Not quite correct	
16	I avoid speaking to anyone in authority	I avoid to speak to any one in an authority situation		Perhaps using Not quit correct

Brief Fear of Negative Evaluation Scale

No	Original item	Back-translated item	Reviewer 's comments (1)	Reviewer's Comments (2)
1	I worry about what other people will think of me even when I know it doesn't make any difference.	I am worried about what the others think of me even if it doesn't make any different to me.		Can different be translated to be nearer to difference?
2	I am unconcerned even if I know people are forming an unfavourable impression of me	I don't care even if I know that people will make a bad impression about me.		May have lost the meaning of the person themselves forming a bad impression on others, it comes across more as others independently forming a negative opinion of the person.
4	I rarely worry about what kind of impression I am making on someone.	I don't care with the impression that I left on the others	Not negative	Has confuses really and rarely, reversing the meaning entirely.
5	I am afraid others will not approve of me.	I am afraid of the others who are not agree with me	Not agree. Approve is much better	Not sure is 'agree' is equivalent to 'approve'.
11	Sometimes I think I am too concerned with what other people think of me.	Sometimes I think I am interested in what the others think of me	Too is Missing	Is it possible to communicate that the person is concerned they might be too worried, rather than simply worried, in a way that they might feel it is 'normal' to be.

Social Interaction Anxiety Scale (SIAS)

No	Original item	Back-translated item	Reviewer 's comments (1)	Reviewer's Comments (2)
1	I get nervous if I have to speak with someone in authority (teacher, boss, etc.).	I got nervous when I speak to some authorized person (a teacher, manager…… etc).	Got has become got- need to keep the tense similar- Otherwise Ok	Get \got
2	I have difficulty making eye contact with others.	I find difficulties to communicate with eyes with others.	Not a good translation.	
7	When mixing socially, I am uncomfortable.	I feel uncomfortable in social companion.		Unclear to the reader in back translation
12	I worry about expressing myself in case I appear awkward.	I got worried when I am untactful.	Not quite right	
13	I find it difficult to disagree with another's point of view.	It is difficult for me to disagree with another's opinion.	Swapped around- probably Ok	has been switch round.
14	I have difficulty talking to attractive persons of the opposite sex.	I find difficulties when I speak with attractive people	Swapped around- probably Ok	has been switch round. No indication that attractive people are of the opposite sex
15	I find myself worrying that I won't know what to say in social situations.	I find myself worried when I think I can't find what to say in social occasions.	Probably Ok –Though tense is slightly out.	

17	I feel I'll say something embarrassing when talking.	I feel that I will say something critical when I speak.	Critical is not quite embarrassing.	'Critical' is not the equivalent of 'embarrassing'

SAS-A (Adolescents)

No	Original item	Back-translated item	Reviewer 's comments (1)	Reviewer's Comments (2)
5	I only talk to people I know really well	I don't speak to people that I don't know	Swapped around	
10	I get nervous when I talk to peers I don't know very well	I will be nervous when I speak to colleagues whom I don't know well	Friends or peers id better	
11	I like to play sports	I like practicing sport		practicing sport, does playing sport communicate competition?
15	I am quiet when I'm with a group of people	I will be calm being with a group of people		'Calm' suggests comfort rather than anxiety, can the work 'quiet' be retranslated so it can be more aligned with social reticence/shyness?
18	If I get into an argument, I worry that the other person will not like me	If I inter in any argue , I will be worried that the other person will not love me		The first phrase may need revisiting it doesn't make sense, although the second phrase is perfect.
21	I feel shy even with peers I know very well	I feel shy even with colleagues I know well	Peers is or friends is better	

Appendix 3: Arabic version of the scales

الاستبيان

تعليمات: لكل بند، يرجى وضع دائرة حول الرقم من أجل الإشارة إلى الدرجة التي تشعر عندها بأن الجملة واصفة أو صحيحة بالنسبة لك. مقياس الدرجات كما يلي:

0 = ليست صفة مميزة على الإطلاق أو حقيقة عني.

1= صفة مميزة قليلا أو حقيقة عني

2 = صفة مميزة إلى حد ما أو حقيقة عني.

3 = صفة مميزة للغاية أو حقيقة عني

4 = صفة مميزة لأقصى حد أو حقيقة عني.

صفة مميزة	على الإطلاق	قليلا	إلى حد ما	للغاية	إلى أقصى حد
1- أشعر بالقلق عندما يجب ان اتحدث مع شخص ذو سلطة مثل : معلم , مدير ..الخ	0	1	2	3	4
2- أجد صعوبة في التواصل بالتظر مع الاخرين	0	1	2	3	4
3- أصبح قلقا عندما يجب علي أن اتحدث عن نفسي أو عن مشاعري	0	1	2	3	4

4- اجد صعوبة في الاختلاط بشكل مريح مع الناس الذين أعمل معهم	0	1	2	3	4
5- من السهل عندي تكوين صداقات مع اشخاص من نفس عمري	0	1	2	3	4
6- أشعر بتوتر عندما التقي بشخص معروف في الشارع	0	1	2	3	4
7- عندما يكون هناك مناسبات اجتماعية معينه, فإنني أشعر بعدم الارتياح	0	1	2	3	4
8- أشعر بالقلق عندما اكون وحدي مع شخص أخر فقط	0	1	2	3	4
9- أشعر بالارتياح لمقابلة الناس في المناسبات الاجتماعية	0	1	2	3	4
10- أجد صعوبة في التحدث الى الاشخاص الاخرين	0	1	2	3	4
11- من السهولة أن أفكر في أشياء للتحدث عنها	0	1	2	3	4
12- أشعر بالقلق في التعبير عن نفسي عند ظهوري بشكل محرج	0	1	2	3	4
13- من الصعب عندي عدم الموافقة مع أراء الاخرين	0	1	2	3	4

14- اجد صعوبة في التحدث الى شخص جذاب من الجنس الاخر	0	1	2	3	4
15- أجد نفسي قلقا عندما لا اعلم ماذا أقول في المواقف الاجتماعية	0	1	2	3	4
16- أشعر بالتوتر في الاختلاط مع اشخاص لا أعرفهم جيدا	0	1	2	3	4
17- أشعر بأنني سأقول شيء ما محرجا عندما أتحدث	0	1	2	3	4
18- عندما اختلط مع مجموعة, أجد نفسي قلقا من تجاهلهم لي	0	1	2	3	4
19- أتوتر عندما اختلط مع مجموعة ما	0	1	2	3	4
20- لست متأكدا من أنني سوف أقوم بالسلام على شخص ما , إذا كانت معرفتي به معرفه سطحية	0	1	2	3	4

الاستبيان رقم 3

يرجى قراءة جميع العبارات واختيار رقم من الأرقام 0، 1، 2، 3 أو 4 والذي يشير إلى مدى انطباق الجملة عليك خلال فترة الأسبوع الماضي. ليس هناك إجابات صحيحة أو خاطئة.

على الإطلاق = 0 قليلا = 1 إلى حد ما = 2 للغاية = 3 إلى أقصى حد = 4

أخاف من الأشخاص الذين يمثلون موقع سلطة

أنزعج عندما أحمِّر خجلا من الاحراج أمام الناس

أشعر بالقلق في المناسبات والأحداث الاجتماعية

أتجنب التحدث مع الأشخاص الذين لا أعرفهم

أشعر بالقلق كثيرا عندما أتعرض للانتقاد

أتجنب القيام بالأشياء أو التحدث إلى الآخرين خوفا من الإحراج

أقلق عندما أتصبب عرقا أمام الآخرين

أتجنب الذهاب إلى المناسبات الاجتماعية

أتجنب الأنشطة التي أكون فيها محط للانتباه

يخيفني أن أتحدث مع الغرباء

أتجنب إلقاء كلمة أمام الناس

أود أن أفعل أي شيء لتجنب الانتقاد

يزعجني خفقان قلبي عندما أكون بين الناس

أخاف من القيام بأشياء معينة عندما أعتقد بأن الآخرين ربما يشاهدونني

من أسوأ مخاوفي أن أكون محرجاً أو أن أبدو أحمقاً

أتجنب التحدث إلى أي شخص في موقع سلطة

أقلق من الارتعاش أو الرجفة أمام الآخرين

استبيان جودة الحياة

سوف أقرأ هذه الأسئلة عليكم، مع خيارات الإجابة. **يرجى اختيار الإجابة التي ترونها أكثر ملائمة**. وفي حالة عدم التأكد من أي إجابة تختارونها لسؤال ما، فاعلموا أن أول إجابة تبادر إلى ذهنكم تكون غالبا أفضل إجابة.

يرجى مراعاة مستوياتكم وآمالكم ومصادر سروركم واهتماماتكم. طلبنا أن تفكروا في حياتكم في **الأسابيع الأربعة الماضية.**

		ضعيف للغاية	ضعيف	بين الضعيف والجيد	جيد	جيد جدا
1.	كيف تقدر مقياس جودة حياتك؟	1	2	3	4	5

		غير راضي للغاية	غير راض	بين راضي وغير راضي	راض	راضي للغاية
2.	ما مدى رضاك عن صحتك؟	1	2	3	4	5

تستفهم الأسئلة التالية عن مقدار شعورك ببعض الأمور في الأسابيع الأربع الماضية.

		لا على الإطلاق	قليلا	مقدار بسيط	كثيرا للغاية	قدرا كبيرا لأقصى حد
.3	إلى أي مدى تشعر أن الألم البدني يمنعك من ممارسة الأعمال التي تود إجرائها؟	5	4	3	2	1
.4	ما مقدار العلاج البدني الذي تشعر بحاجتك إليه ليعمل في حياتك اليومية؟	5	4	3	2	1
.5	إلى أي مدى تستمع بحياتك؟	1	2	3	4	5
.6	إلى أي مدى تشعر أن لحياتك هدف؟	1	2	3	4	5

		على الإطلاق	قليلا	قدر متوسط	كثير للغاية	إلى أقصى حد
.7	ما مدى قدرتك على التركيز على نحو جيد؟	1	2	3	4	5
.8	ما مدى شعورك بالسلامة في حياتك اليومية؟	1	2	3	4	5

.9	ما مدى صحية البيئة الطبيعية المحيطة بك؟	1	2	3	4	5

تستفهم الأسئلة التالية مدى شعورك أو قدرتك التامة على عمل بعض الأشياء في الأسابيع الأربعة الماضية.

		على الإطلاق	قليلا	قدر متوسط	في الأغلب	تماما
.10	هل لديك الطاقة الكافية لحياتك اليومية؟	1	2	3	4	5
.11	هل أنت قادر على قبول مظهرك الجسدي؟	1	2	3	4	5
.12	هل لديك المال الكافي للوفاء باحتياجاتك؟	1	2	3	4	5
.13	ما مدى توفر المعلومات إليك والتي تحتاجها في حياتك اليومية؟	1	2	3	4	5
.14	إلى أي مدى لديك الفرصة من أجل ممارسة أنشطة ترفيهية؟	1	2	3	4	5

		ضعيف للغاية	ضعيف	بين الضعيف والجيد	جيد	جيد جدا

.15	ما مدى قدرتك على السفر من مكان إلى آخر؟	1	2	3	4	5

		غير راضي للغاية	غير راض	بين راضي وغير راضي	راض	راضي للغاية
.16	ما مدى رضاك عن نومك؟	1	2	3	4	5
.17	ما مدى رضاك عن قدرتك على ممارسة أنشطة حياتك اليومية؟	1	2	3	4	5
.18	ما مدى رضاك عن قدرتك على العمل؟	1	2	3	4	5
.19	ما مدى رضاك عن ذاتك؟	1	2	3	4	5
.20	ما مدى رضاك عن علاقاتك الشخصية؟	1	2	3	4	5
.21	ما مدى رضاك عن حياتك الجنسية؟	1	2	3	4	5
.22	ما مدى رضاك عن الدعم الذي تحصل عليه من أصدقائك؟	1	2	3	4	5

.23	ما مدى رضاك عن الظروف المحيطة بمكان معيشتك؟	1	2	3	4	5
.24	ما مدى رضاك عن قابلية وصولك إلى الخدمات الصحية؟	1	2	3	4	5
.25	ما مدى رضاك عن وسائل الانتقال لديك؟	1	2	3	4	5

يشير السؤال التالي إلى كم عدد المرات التي شعرت فيها بأمور معينة خلال الأسابيع الأربعة الماضية.

		أبدا	نادرا	أحيانا	غالبا	دائما
.26	كم مرة أصابك شعور سلبي مثل المزاج السيئ أو اليأس أو القلق أو الاكتئاب؟	1	2	3	4	5

توجيهات: رجاءا وضح كيف تصفك بقرب كل من الكلمات التي بأسفل عن طريق وضع تقييم في المربع المجاور لكل كلمة، باستخدام المقياس التالي:

0= بدون مانع على الإطلاق 2= كمية معتدلة 4 = كثيرا جدا

1. طموح		23- فردي	
2. كريم		24. داعم	
3.متفاهم		25- رقيق	
4.مقرر مصيره		26- مساعد	
5. ذكي		27. غير مريح	
6. رفيق		28. منتمي	
7. رائد		29- عطوف	
8.مضياف		30 – مؤهل	
9. مكافح		31- حنون	
10. رحيم		32. مبدع	
11. قوي		33. منضبط الذات	
12. منتج		34. ودود	
13. متحكم بذاته		35. معتمد على الذات	
14. محرز		36. ودود	
15. حميمي		37. أنيس	
16. مستقل		38. عاقد العزم	
17. غير أناني		39. مفيد	
18. مقدر		40- مستقل	
19.مريح		41- متفوق	
20. بارع		42- منظم	
21. طيب		43- هادف	
22. منجز		44- رقيق	

Appendix 4: Inventories

1. Social phobia inventory (SPIN)

Social phobia inventory, Avoidance	Not at all		A little bit		somewhat		Very much		extremely		Total		
	N	*N%*	*N*	*N%*	*N*	*N%*	*N*	*N%*	*N*	*N%*	*N*	*M*	*SD*
Parties and social event scare me	190	33.7	189	33.5	112	19.9	58	10.3	15	2.7	564	1.15	1.08
I avoid talking to people I don't know	97	17.2	197	34.9	129	22.9	67	11.9	74	13.1	564	1.69	1.25
I avoid going to parties	273	48.4	146	25.9	79	14.0	37	6.6	29	5.1	564	.94	1.16
I avoid activities in which I am the centre of attention	199	35.3	158	28.0	90	16.0	60	10.6	56	9.9	564	1.32	1.32
Heart palpitations bother me when I am around people	193	34.2	144	25.5	75	13.3	85	15.1	66	11.7	564	1.45	1.40

Social phobia inventory, Fear	Not at all		A little bit		somewhat		Very much		extremely		Total		
	N	*N%*	*N*	*N%*	*N*	*N%*	*N*	*N%*	*N*	*N%*	*N*	*M*	*SD*
I am bothered by blushing in front of people	113	20.0	132	23.4	138	24.5	109	19.3	72	12.8	564	1.81	1.30
Being criticized scares me a lot	79	14.0	142	25.2	161	28.5	101	17.9	81	14.4	564	1.93	1.25
I avoid doing things or speaking to people for fear of embarrassment	174	30.9	184	32.6	115	20.4	58	10.3	33	5.9	564	1.28	1.17
Sweating in front of people causes me distress	216	38.3	136	24.1	92	16.3	68	12.1	48	8.5	564	1.30	1.34
Talking to strangers scares me	217	38.5	166	29.4	89	15.8	46	8.2	41	7.3	564	1.19	1.27
I would do anything to avoid being criticized	106	18.8	142	25.2	113	20.0	85	15.1	117	20.7	564	1.94	1.41
I am afraid of doing things when people might be watching	141	25.0	152	27.0	107	19.0	106	18.8	58	10.3	563	1.62	1.31
Being embarrassed or looking stupid are among my worst fears	106	18.8	103	18.3	124	22.0	122	21.7	103	18.3	564	2.05	1.40
Trembling or shaking in front of others is distressing to me	186	33.0	125	22.2	99	17.6	92	16.3	62	11.0	564	1.50	1.37

Social phobia inventory, Authority Problems	Not at all		A little bit		somewhat		Very much		extremely		Total		
	N	*N%*	*N*	*N%*	*N*	*N%*	*N*	*N%*	*N*	*N%*	*N*	*M*	*SD*
I am afraid of people in authority	180	31.9	196	34.8	121	21.5	45	8.0	22	3.9	564	1.17	1.08
I avoid having to give speeches.	138	24.5	137	24.3	98	17.4	79	14.0	112	19.9	564	1.80	1.45
I avoid speaking to anyone in authority	207	36.7	155	27.5	111	19.7	58	10.3	33	5.9	564	1.21	1.20

2. Social interaction anxiety (SIAS)

In relation to the SIAS scale, the analysis showed that the mean total score was 26.36 (*SD* = 10.33). To examine the items that had the highest and lowest scores (see Table 6.3), the analysis showed that the highest three items were item 11 (*M* = 2.10, *SD* = 1.36: *I find it easy to think of things to talk about*), item 5 (*M* = 1.83, *SD* = 1.39: *I find it easy to make friends my own age*) and item 12 (M = 1.82, SD = 1.33: *I Worry about expressing myself in case I appear awkward*).

Social interaction anxiety	**Not at all**		**slightly**		**Moderately**		**very**		**extremely**		**Total**		
	N	***N%***	***N***	***N%***	***N***	***N%***	***N***	***N%***	***N***	***N%***	***N***	***M***	***SD***
Speak with someone in authority	140	24.8	269	47.7	117	20.7	28	5.0	10	1.8	564	1.11	.896
Difficulty making eye contact with others.	301	53.5	167	29.7	69	12.3	12	2.1	14	2.5	563	.71	.93
Tense if I have to talk about myself or my feelings.	149	26.5	188	33.5	121	21.5	57	10.1	47	8.4	562	1.40	1.21
Difficult to mix comfortably with the people I work with.	265	47.2	172	30.6	66	11.7	28	5.0	31	5.5	562	.91	1.13
I find it easy to make friends my own age.	129	22.9	125	22.2	119	21.1	96	17.0	95	16.8	564	1.83	1.39
Tense up if I meet an acquaintance in the street.	273	48.6	141	25.1	90	16.0	35	6.2	23	4.1	562	.92	1.12
When mixing socially, I am uncomfortable.	247	43.8	186	33.0	76	13.5	26	4.6	28	5.0	563	.94	1.09
Tense if I am alone with just one other person.	280	49.7	158	28.1	78	13.9	24	4.3	23	4.1	563	.85	1.07
I am at ease meeting people at parties, etc.	147	26.1	115	20.4	105	18.6	115	20.4	82	14.5	564	1.77	1.40
I have difficulty talking with other people.	299	53.1	136	24.2	74	13.1	32	5.7	22	3.9	563	.83	1.10
I find it easy to think of things to talk about.	105	18.7	84	15.0	121	21.6	153	27.3	98	17.5	561	2.10	1.36
I worry about expressing myself in case I appear awkward.	100	17.9	162	28.9	127	22.7	80	14.3	91	16.3	560	1.82	1.33
Difficult to disagree with another's point of view.	181	32.3	199	35.5	116	20.7	30	5.3	34	6.1	561	1.18	1.13
Talking to attractive persons of the opposite sex.	148	26.5	138	24.7	103	18.5	62	11.1	106	19.0	558	1.73	1.48
I won't know what to say in social situations.	106	19.0	161	28.9	138	24.7	100	17.9	53	9.5	558	1.70	1.23
Nervous mixing with people I don't know well.	94	16.7	196	34.8	129	22.9	80	14.2	65	11.5	564	1.69	1.23
I'll say something embarrassing when talking.	207	36.8	189	33.6	95	16.9	39	6.9	33	5.9	563	1.12	1.15
I find myself worrying I will be ignored.	159	28.2	174	30.9	103	18.3	68	12.1	60	10.6	564	1.46	1.30
I am tense mixing in a group.	191	33.9	193	34.3	104	18.5	50	8.9	25	4.4	563	1.16	1.12
Greeting someone I know only slightly.	213	37.8	153	27.1	105	18.6	40	7.1	53	9.4	564	1.23	1.28

3. Beck anxiety inventory (BAI)

In terms of the BAI scale, the analysis showed that the mean total score was 18.75 (*SD* = 10.58). The results in Table 6.4 indicate that about 28.0% of the respondents indicate that item 5 (*Fear of worst happening*) from the BAI scale (*M* = 1.57, *SD* = 1.13) is the highest severely anxious recorded item. There appears to be variance among people regarding anxiety symptoms. The (*nervous*, *face flushed* and *fear of dying)* items recorded high means (*M* = 1.43, *SD* = 1.05), (*M* = 1.28, *SD* = 1.11) and (*M* = 1.24, *SD* = 1.20), respectively, in contrast with other anxiety symptom items.

Beck anxiety inventory Subjective	**Not at all**		**Mildly**		**moderately**		**severely**		**Total**		
	N	***N%***	***N***	***N%***	***N***	***N%***	***N***	***N%***	***N***	***M***	***SD***
Unable to relax	244	43.3	168	29.8	101	17.9	50	8.9	563	.92	.98
Fear of worst happening	137	24.3	126	22.3	143	25.4	158	28.0	564	1.57	1.13
Terrified or afraid	323	57.3	141	25.0	63	11.2	37	6.6	564	.67	.91
Nervous	136	24.2	157	27.9	163	29.0	107	19.0	563	1.43	1.05
Fear of losing control	248	44.0	159	28.2	92	16.3	65	11.5	564	.95	1.03
Fear of dying	226	40.2	102	18.1	105	18.7	129	23.0	562	1.24	1.20
Scared	301	53.6	153	27.2	69	12.3	39	6.9	562	.73	.92

Beck anxiety inventory, Neurophysiologic	**Not at all**		**Mildly**		**moderately**		**severely**		**Total**		
	N	***N%***	***N***	***N%***	***N***	***N%***	***N***	***N%***	***N***	***M***	***SD***
Numbness or tingling	278	49.4	183	32.5	80	14.2	22	3.9	563	.73	.84
Wobbliness in legs	332	58.9	130	23.0	65	11.5	37	6.6	564	.66	.92
Dizzy or lightheaded	273	48.4	163	28.9	88	15.6	40	7.1	564	.81	.94
Unsteady	332	58.9	124	22.0	66	11.7	42	7.4	564	.68	.94
Hands trembling	355	62.9	118	20.9	57	10.1	34	6.0	564	.59	.89
Shaky / unsteady	414	73.8	78	13.9	49	8.7	20	3.6	564	.42	.79
Faint / lightheaded	440	78.3	70	12.5	27	4.8	25	4.4	562	.35	.77

Beck anxiety inventory, Autonomic	**Not at all**		**Mildly**		**moderately**		**severely**		**Total**		
	N	***N%***	***N***	***N%***	***N***	***N%***	***N***	***N%***	***N***	***M***	***SD***
Feeling hot	264	46.8	186	33.0	81	14.4	33	5.9	564	.79	.89
Indigestion	318	56.4	133	23.6	68	12.1	45	8.0	564	.72	.96
Face flushed	184	32.6	145	25.7	126	22.3	109	19.3	564	1.28	1.11
Hot/cold sweats	306	54.3	132	23.4	62	11.0	64	11.3	564	.79	1.03

Beck anxiety inventory, Panic-related	**Not at all**		**Mildly**		**moderately**		**severely**		**Total**		
	N	***N%***	***N***	***N%***	***N***	***N%***	***N***	***N%***	***N***	***M***	***SD***
Heart pounding/racing	311	55.2	131	23.3	70	12.4	51	9.1	563	.75	.99
Feeling of choking	347	61.5	125	22.2	56	9.9	36	6.4	564	.61	.90
Difficulty in breathing	347	61.5	126	22.5	60	10.7	27	4.8	560	.58	.86

4. Fear of negative evaluation (BFNE)

In relation to the BFNE scale, the analysis showed that the mean total score was 28.55 (*SD* = 8.79). As can be seen from Table 6.5, the indicators of 'extremely' 'worried to say or do the wrong things' (*M* = 2.64 *SD* = 1.32) and 'afraid of other people noticing person's shortcomings' (*M* = 2.57 *SD* = 1.24) and 'judging by others' (*M* = 2.40, *SD* = 1.22) were all strongly associated with the domain of fear of negative evaluation.

Brief fear of negative evaluation	**Not at all**		**slightly**		**moderately**		**very**		**extremely**		**Total**		
	N	***N%***	***N***	***N%***	***N***	***N%***	***N***	***N%***	***N***	***N%***	***N***	***M***	***SD***
I worry about what other people will think of me even when I know it doesn't make any difference	192	34.3	205	36.3	101	18.1	22	3.9	36	6.4	559	2.09	1.13
I am unconcerned even if I know people are forming an unfavourable impression of me.	173	30.9	197	35.2	106	18.9	37	6.6	42	7.5	560	2.22	1.19
I am frequently afraid of other people noticing my shortcomings.	119	21.3	191	34.2	121	21.6	69	12.3	59	10.6	559	2.57	1.24
I rarely worry about what kind of impression I am making on someone.	142	25.4	188	33.6	117	20.9	67	12.0	40	7.2	559	2.39	1.21
I am afraid others will not approve of me.	230	41.1	165	29.5	84	15.0	43	7.7	34	6.1	560	2.06	1.20
I am afraid that people will find fault with me.	228	40.7	177	31.6	76	13.6	35	6.3	40	7.1	560	2.05	1.21
Other people's opinions of me do not bother me.	159	28.4	211	37.7	97	17.3	46	8.2	42	7.5	560	2.26	1.19
When I am talking to someone, I worry about what they may be thinking about me.	179	32.0	219	39.1	87	15.5	46	8.2	25	4.5	560	2.12	1.10
I am usually worried about what kind of impression I make.	172	30.7	195	34.8	96	17.1	44	7.9	49	8.8	560	2.27	1.24
If I know someone is judging me, it has little effect on me.	146	26.1	182	32.5	117	20.9	68	12.1	42	7.5	560	2.40	1.22
Sometimes I think I am too concerned with what other people think of me.	182	32.5	206	36.8	90	16.1	45	8.0	36	6.4	560	2.19	1.16
I often worry that I will say or do the wrong things.	117	20.9	179	32.0	111	19.8	74	13.2	75	13.4	560	2.64	1.32

5. Social interaction (SI)

In relation to the SI scale, the analysis showed that the mean total score was 21.21 (*SD* = 6.10). Results from the social interaction scale showed that more than half of the respondents (*N* = 311) experienced item 4 (*I believe that I am an active member in my family)* showing the highest mean (*M* = 3.20, *SD* = 1.07) of all items. See Table 6.6 for more details.

Social interaction	**Not at all**		**A little bit**		**somewhat**		**Very much**		**extremely**		**Total**		
	N	**N%**	**N**	**N%**	**N**	**N%**	**N**	**N%**	**N**	**N%**	**N**	**M**	**SD**
I can communicate well with others	18	3.2	53	9.5	143	25.5	187	33.4	159	28.4	560	2.07	1.06
I play an active role in society	49	8.8	129	23.0	193	34.5	129	23.0	60	10.7	560	2.04	1.11
Others come to me for help	26	4.6	86	15.4	224	40.0	135	24.1	89	15.9	560	2.31	1.05
I believe that I am an active member in my family	12	2.1	44	7.9	73	13.0	120	21.4	311	55.5	560	3.20	1.07
I get involved in social work activities	69	12.3	137	24.5	175	31.3	108	19.3	71	12.7	560	1.96	1.19
I play a role in charity activities	76	13.6	139	24.9	170	30.4	101	18.1	73	13.1	559	1.92	1.22
I take part in social events	66	11.8	130	23.2	148	26.4	124	22.1	92	16.4	560	2.08	1.25
I prefer to work in a group rather than individually	73	13.0	81	14.5	109	19.5	94	16.8	203	36.3	560	2.49	1.43
People find me to be easily approachable	53	9.5	46	8.2	130	23.3	178	31.9	151	27.1	558	2.59	1.23

6. Social anxiety scale for adolescents (SAS-A)

In relation to the SAS-A scale, the analysis showed that the mean total score was 44.36 (*SD* = 11.90). Regarding adolescents' reports of their social anxiety symptoms measured by SAS-A, total SAS-A > 50 was used as the cut-off score to detect social phobia. This cut-off point has been recommended by La Greca (1998) as a useful marker for clinically significant social anxiety among adolescents. The analysis for the levels of social anxiety symptoms showed that 27.0% (*N* = 152) of the students are considered to be suffering from social anxiety.

In relation to subscales of the SAS-A, the analysis showed that the mean scores were: SAD-New (*M* = 15.74, *SD* = 4.21), Fear of negative evaluation (*M* = 17.07, *SD* = 6.48) and SAD-General (*M* = 9.30, *SD* = 3.15). Using item analysis to examine the items that had the highest and lowest scores (see Table 6.7), the analysis showed that the mean items on the SAS-A subscale ranged from 3.38 (*SD* = 1.31) (item 10: *I get nervous when I talk to peers I don't know very well*) to 1.66 (*SD* = 1.07) (item 21: *I feel shy even with peers I know very well*). The highest three items in addition to item 10 were item 15 (*M* = 3.20, *SD* = 1.31: *I am quiet when I'm with a group of people*); item 5 (*M* =2.80, *SD* =1.39: *I only talk to people I know really well*); and item 4 (*M* = 2.60, *SD* = 1.19: *I feel shy around people I don't know*). The highest mean item scores (item 10) belongs to SAD-New subscale, while the lowest mean item scores varied among the three subscales. The results support the mean scores of the subscales mentioned in Table 6.7 – that SAD-New was the highest reported subscale among the three subscales. In conclusion, participants suffer social anxiety in new situations more than general situations and they fear negative evaluation. About 27% of the respondents showed positive symptoms of social phobia (score of > 50).

Social anxiety, SAD-New	**Not at all**		**Hardly ever**		**sometimes**		**Most of the time**		**All the time**		**Total**		
	N	***N%***	***N***	***N%***	***N***	***N%***	***N***	***N%***	***N***	***N%***	***N***	***M***	***SD***
I worry about doing something new in front of others	195	34.6	110	19.5	208	36.9	34	6.0	16	2.8	563	2.23	1.07
I feel shy around people I don't know	128	22.7	128	22.7	191	33.9	71	12.6	45	8.0	563	2.60	1.19
I only talk to people I know really well	148	26.3	87	15.5	143	25.4	99	17.6	86	15.3	563	2.80	1.39
I get nervous when I talk to peers I don't know very well	63	11.2	74	13.1	170	30.2	97	17.2	159	28.2	563	3.38	1.31
I get nervous when I meet new people	161	28.7	130	23.2	189	33.7	50	8.9	31	5.5	561	2.39	1.15
I feel nervous when I'm around certain people	168	29.9	128	22.8	187	33.3	48	8.6	30	5.3	561	2.37	1.15

Social anxiety, Fear of negative evaluation	**Not at all**		**Hardly ever**		**sometimes**		**Most of the time**		**All the time**		**Total**		
	N	***N%***	***N***	***N%***	***N***	***N%***	***N***	***N%***	***N***	***N%***	***N***	***M***	***SD***
I worry about being teased	216	38.4	110	19.6	159	28.3	46	8.2	31	5.5	652	2.23	1.20
I feel that peers talk about me behind my back	222	39.4	100	17.8	164	29.1	45	8.0	32	5.7	563	2.23	1.21
I worry about what others think of me	177	31.4	129	22.9	168	29.8	53	9.4	36	6.4	563	2.36	1.19
I'm afraid that others will not like me	236	42.2	110	19.7	133	23.8	42	7.5	38	6.8	559	2.17	1.24
I worry about what others say about me	205	36.5	102	18.1	183	32.6	48	8.5	24	4.3	562	2.26	1.16
I worry that others don't like me	262	46.8	114	20.4	127	22.7	37	6.6	20	3.6	560	2.00	1.13
I feel that others make fun of me	293	52.2	100	17.8	117	20.9	33	5.9	18	3.2	561	1.90	1.11
If I get into an argument, I worry that the other person will not like me	254	45.1	136	24.2	121	21.5	31	5.5	21	3.7	563	1.99	1.10

Social anxiety, SAD-General	**Not at all**		**Hardly ever**		**sometimes**		**Most of the time**		**All the time**		**Total**		
	N	***N%***	***N***	***N%***	***N***	***N%***	***N***	***N%***	***N***	***N%***	***N***	***M***	***SD***
I am quiet when I'm with a group of people	84	14.9	71	12.6	174	31.0	117	20.8	116	20.6	562	3.20	1.31
I'm afraid to invite others to do things with me because they might say no	216	38.4	120	21.4	154	27.4	44	7.8	28	5.0	562	2.20	1.17
I feel shy even with peers I know very well	366	65.0	83	14.7	70	12.4	25	4.4	19	3.4	563	1.66	1.07
It is hard for me to ask others to do things with me	191	33.9	122	21.7	184	32.7	37	6.6	29	5.2	563	2.27	1.14

7. Individualism vs. relatedness

Regarding adolescents' report of their individualism vs. relatedness as measured by the SRAQ, the analysis showed that the mean scores were: Positive individualism (*M* = 55.93, *SD* = 15.34), Positive relatedness (*M* = 60.53, *SD* = 13.97). Using item analysis to examine the items that had the highest and lowest scores (see table 6.8), the analysis showed that the mean items on Positive individualism subscale ranged from 2.95 (*SD* = 1.18) (item 1: *Aspiring*) to 1.66 (*SD* = 1.07) (item 27: *Non-Conforming*). Results showed that more than half of the participants (*n* = 287) (51%) recorded 'very much' on item 1: *Aspiring*). The highest three items in addition to item 1 were item 41 (*M* = 2.78, *SD* = 1.13: *Excelling*), item 13 (*M* = 2.77, *SD* = 1.20: *Self-controlled*) and item 35 (*M* = 2.77, *SD* = 1.21: *Self-Reliant*).

The highest mean item score belong to Positive relatedness item 21 (*M* = 3.44, *SD* = .97: *Kind*), while the lowest mean item score was item 28 (*M* = 2.44, *SD* = 1.37: *Loyal*). The highest three items in addition to item 21 were item 2 (*M* = 3.21, *SD* = 1.06: *Gracious*), item 26 (*M* = 3.09, *SD* = 1.13: *Aiding*) and item 31 (*M* = 3.09, *SD* = 1.16: *Affectionate*). The results (Table 6.8) support that participants scored higher on the Positive relatedness subscale Positive individualism.

Individualism vs. relatedness

Positive individualism	Not at all		A little		moderate		very		Very much		Total		
	N	*N%*	*N*	*N%*	*N*	*N%*	*N*	*N%*	*N*	*N%*	*N*	*M*	*SD*
Aspiring	23	4.1	21	3.7	206	36.6	26	4.6	287	51.0	563	2.95	1.18
Self-determined	108	19.1	43	7.6	226	40.1	33	5.9	154	27.3	564	2.15	1.40
Intelligent	17	3.0	12	2.1	281	49.9	77	13.7	176	31.3	563	2.68	1.03
Leading	76	13.5	47	8.4	255	45.4	38	6.8	146	26.0	562	2.23	1.29
Striving	36	6.4	23	4.1	228	40.5	56	9.9	220	39.1	563	2.71	1.20
Powerful	26	4.6	16	2.8	248	44.0	69	12.3	204	36.2	563	2.73	1.12
Productive	108	19.3	43	7.7	235	41.9	39	7.0	136	24.2	561	2.09	1.37
Self-controlled	37	6.6	16	2.8	215	38.1	67	11.9	229	40.6	564	2.77	1.20
Attaining	77	13.9	45	8.1	263	47.6	45	8.1	123	22.2	553	2.17	1.25
Autonomous	106	18.9	42	7.5	217	38.7	40	7.1	156	27.8	561	2.17	1.41
Masterful	26	4.6	23	4.1	237	42.2	66	11.7	210	37.4	562	2.73	1.14
Achieving	41	7.3	23	4.1	244	43.3	65	11.5	191	33.9	564	2.61	1.19
Individualistic	191	33.9	31	5.5	210	37.2	33	5.9	99	17.6	564	2.68	1.43
Non-Conforming	335	59.4	55	9.8	113	20.0	10	1.8	51	9.0	564	.91	1.29
Competent	65	11.5	18	3.2	240	42.6	65	11.5	175	31.1	563	2.47	1.27
Ingenious	29	5.1	35	6.2	225	39.9	60	10.6	215	38.1	564	2.70	1.18
Self-Disciplined	34	6.0	30	5.3	238	42.2	53	9.4	209	37.1	564	2.66	1.19
Self-Reliant	34	6.0	28	5.0	206	36.6	62	11.0	233	41.4	563	2.77	1.21
Determined	56	10.0	30	5.4	238	42.7	58	10.4	176	31.5	558	2.48	1.26
Independent	90	16.0	43	7.6	228	40.5	42	7.5	160	28.4	563	2.25	1.36
Excelling	27	4.8	17	3.0	226	40.1	77	13.7	217	38.5	564	2.78	1.13
Orderly	63	11.2	26	4.6	211	37.4	63	11.2	201	35.6	564	2.55	1.31
Purposeful	42	7.5	24	4.3	202	35.9	47	8.3	248	44.0	563	2.77	1.26

Positive relatedness	**Not at all**		**A little**		**moderate**		**very**		**Very much**		**Total**		
	N	***N%***	***N***	***N%***	***N***	***N%***	***N***	***N%***	***N***	***N%***	***N***	***M***	***SD***
Generous	8	1.4	13	2.3	202	35.8	54	9.6	287	50.9	564	3.06	1.04
Understanding	23	4.1	15	2.7	201	35.6	64	11.3	261	46.3	2.93	2.93	1.13
Attached	20	3.6	13	2.3	193	34.3	48	8.5	289	51.3	563	3.02	1.12
Hospitable	37	6.6	35	6.2	223	39.5	49	8.7	219	38.9	563	2.67	1.23
Gracious	10	1.8	15	2.7	163	28.9	31	5.5	344	61.1	563	3.21	1.06
Intimate	59	10.5	32	5.7	211	37.6	53	9.4	206	36.7	561	2.56	1.13
Unselfish	89	15.8	22	3.9	166	29.4	61	10.8	226	40.1	564	2.55	1.44
Appreciative	34	6.1	24	4.3	160	28.4	51	9.1	290	51.9	559	2.96	1.23
Comforting	17	3.0	8	1.4	196	34.8	69	12.3	273	48.5	563	3.02	1.07
Kind	12	2.1	8	1.4	101	17.9	42	7.4	401	71.1	564	3.44	.97
Supporting	44	7.8	23	4.1	222	39.4	51	9.0	224	39.7	564	2.69	1.25
Warm	64	11.3	21	3.7	205	36.3	66	11.7	208	36.9	564	2.59	1.31
Aiding	24	4.3	12	2.1	159	28.2	63	11.2	306	54.3	564	3.09	1.13
Loyal	77	13.7	33	5.9	210	37.3	49	8.7	194	34.4	563	2.44	1.37
Sympathetic	18	3.2	20	3.6	169	30.0	48	8.5	308	54.7	563	3.08	1.12
Affectionate	25	4.4	16	2.8	162	28.7	41	7.3	320	56.7	564	3.09	1.16
Friendly	25	4.4	18	3.2	201	35.6	59	10.5	261	46.3	564	2.91	1.15
Chummy	28	5.0	26	4.6	208	36.9	46	8.2	255	45.2	563	2.84	1.19
Companionable	29	5.2	20	3.6	204	36.2	63	11.2	247	43.8	563	2.85	1.17
Helpful	20	3.6	13	2.3	216	38.4	76	13.5	238	42.3	563	2.89	1.09
Tender	66	11.7	26	4.6	178	31.6	50	8.9	244	43.3	564	2.67	1.37

8. Quality of life (WHOQOL)

In relation to the WHOQOL scale, the analysis showed that the mean total score was 90.81 (*SD* = 13.84). Regarding adolescents' report of their quality of life as measured by WHOQOL-BREF, the analysis showed that the mean scores were: Physical health (*M* = 22.73, *SD* = 3.83), Psychological health (*M* = 21.17, *SD* = 3.96), Environmental health (*M* = 28.35, *SD* = 5.82) and Social relationships (*M*= 10.84, *SD* = 2.58). Using item analysis to examine the items that had the highest and lowest scores on the WHOQOL scale (see Table 6.9), the results showed that the mean items on the physical health subscale ranged from 3.70 (*SD* = 1.22) (item 15: *How well are you able to get around?)* to 2.52 (*SD* = 1.18) (item 3: *To what extent do you feel that physical pain prevents you from doing what you need to do?).* The highest three items in addition to item 15 were item 10 (*M* = 3.63, *SD* = 1.10: *Do you have enough energy for everyday life?);* item 17 (*M* = 3.55, *SD* = .96: *How satisfied are you with your ability to perform your daily living activities?);* and item 18 (*M* = 3.53, *SD* = .93: *How satisfied are you with your capacity for work?).*

In terms of the Psychological health subscale (see Table 6.9), the descriptive data showed that the mean items on physical health subscale ranged from 3.86 (*SD* = .96) item 19: *How satisfied are you with yourself?* to 2.80 (*SD* = .94) item 26: *How often do you have negative feelings such as blue mood, despair, anxiety, depression?*. However, XXX of 239 participants, 42% (???) reported that they were 'neither satisfied nor dissatisfied'. The highest three items in addition to item 19 were item 5 (*M* = 3.85, *SD* = 1.03: *How much do you enjoy life?);* item 6 (*M* = 3.75, *SD* = 1.13: *To what extent do you feel your life to be meaningful?)*; and item 11 (*M* = 3.71, *SD* = 1.30: *Are you able to accept your bodily appearance?*).

With regard to the Environmental health subscale (see table 6.9), it was found that the mean items ranged from 3.80 (*SD* = 1.22) (item 25: *How satisfied are you with your transport?*) to 3.23 (*SD* = 1.14) (item 9: *How healthy is your physical environment?*). The

highest three items in addition to item 25 were item 23 (*M* = 3.76, *SD* = 1.07: *How satisfied are you with the conditions of your living place?*)*;* item 12 (*M* = 3.73, *SD* = 1.19: *Have you enough money to meet your needs?*); and item 24 (*M* = 3.68, *SD* = 1.07: *How satisfied are you with your access to health services?*).

Finally, examining the items that had the highest and lowest scores on the Social relationships subscale (see Table 6.9), the descriptive data showed that the mean items ranged from 3.89 (*SD* = 1.04) (item 20: *How satisfied are you with your personal relationships?*) to 3.77 (*SD* = 1.14) (item 21: *How satisfied are you with your sex life?*). In addition, item 22 was recorded as the second highest item mean (*M* = 3.79, *SD* = .99: *How satisfied are you with the support you get from your friends?*). It should be noted that item 21 (*How satisfied are you with your sex life?*) was most avoided by participants.

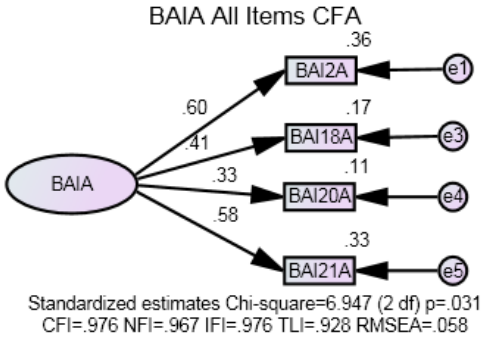
WHOQOL-BREF, Physical health	**Very poor**		**poor**		**Neither poor nor good**		**good**		**Very good**		**Total**		
	N	***N%***	***N***	***N%***	***N***	***N%***	***N***	***N%***	***N***	***N%***	***N***	***M***	***SD***
To what extent do you feel that physical pain prevents you from doing what you need to do?	141	25.0	144	25.6	157	27.9	89	15.8	32	5.7	563	2.52	1.18
How much do you need any medical treatment to function in your daily life?	127	22.6	153	27.2	163	29.0	84	14.9	36	6.4	563	2.55	1.17
Do you have enough energy for everyday life?	21	3.7	78	13.9	124	22.1	205	36.5	134	23.8	562	3.63	1.10
How well are you able to get around?	44	7.8	49	8.7	117	20.9	173	30.8	178	31.7	561	3.70	1.22
How satisfied are you with your sleep?	55	9.8	65	11.5	176	31.5	157	27.8	111	19.7	564	3.36	1.20
How satisfied are you with your ability to perform your daily living activities?	16	2.9	45	8.0	211	37.7	191	34.1	97	17.3	560	3.55	.96
How satisfied are you with your capacity for work?	19	3.4	46	8.2	187	33.5	233	41.8	73	13.1	558	3.53	.93

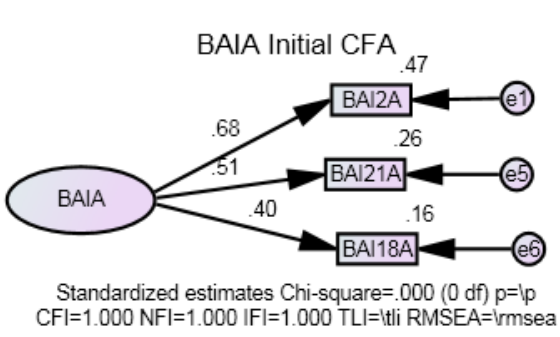
WHOQOL-BREF, Psychological health	**Very dissatisfied**		**dissatisfied**		**Neither satisfied nor dissatisfied**		**satisfied**		**Very satisfied**		**Total**		
	N	***N%***	***N***	***N%***	***N***	***N%***	***N***	***N%***	***N***	***N%***	***N***	***M***	***SD***
How much do you enjoy life?	19	3.4	45	8.0	100	17.7	236	41.8	164	29.1	564	3.85	1.03
To what extent do you feel your life to be meaningful?	24	4.3	61	10.8	122	21.6	182	32.3	175	31.0	564	3.75	1.13
How well are you able to concentrate?	17	3.0	78	13.9	254	45.1	153	27.2	61	10.8	563	3.29	.93
Are you able to accept your bodily appearance?	46	8.3	70	12.6	91	16.3	142	25.5	208	37.3	557	3.71	1.30
How satisfied are you with yourself?	15	2.7	19	3.4	159	28.3	207	36.9	161	28.7	561	3.86	.96
How often do you have negative feelings such as blue mood, despair, anxiety, depression?	50	8.9	152	27.0	239	42.5	104	18.5	17	3.0	562	2.80	.94

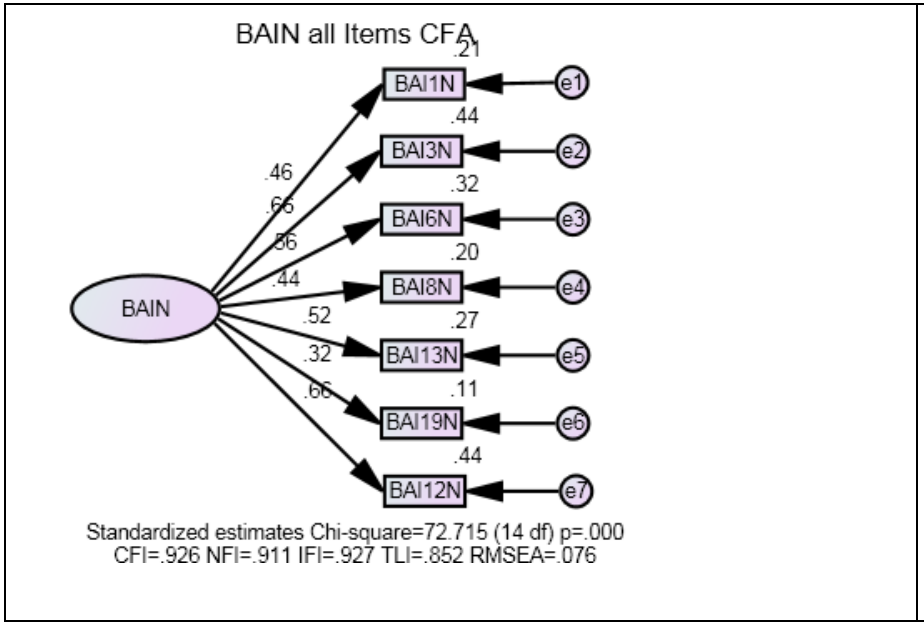
WHOQOL-BREF, Environmental health	Not at all		little		moderately		mostly		completely		Total		
	N	*N%*	*N*	*N%*	*N*	*N%*	*N*	*N%*	*N*	*N%*	*N*	*M*	*SD*
How safe do you feel in your daily life?	26	4.6	62	11.1	166	29.6	186	33.2	121	21.6	561	3.56	1.08
How healthy is your physical environment?	38	6.8	118	21.0	171	30.4	149	26.5	86	15.3	562	3.23	1.14
Have you enough money to meet your needs?	29	5.2	66	11.7	126	22.4	150	26.7	191	34.0	562	3.73	1.19
How available to you is the information that you need in your day-to-day life?	9	1.6	92	16.4	232	41.4	167	29.8	61	10.9	561	3.32	.92
To what extent do you have the opportunity for leisure activities?	30	5.3	94	16.7	157	27.9	179	31.9	102	18.1	562	3.41	1.12
How satisfied are you with the conditions of your living place?	23	4.1	42	7.5	145	25.9	187	33.4	163	29.1	650	3.76	1.07
How satisfied are you with your access to health services?	21	3.7	56	10.0	147	26.2	196	34.9	141	25.1	561	3.68	1.07
How satisfied are you with your transport?	35	6.2	55	9.8	112	19.9	145	25.8	216	38.4	563	3.80	1.22

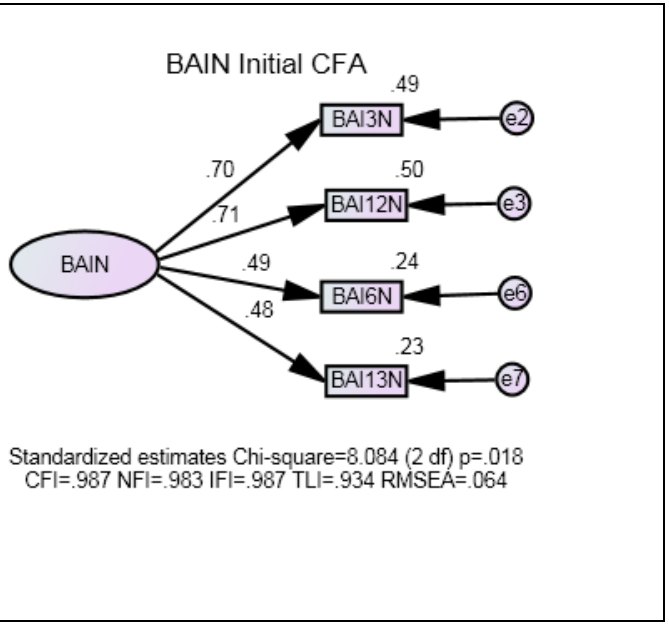
WHOQOL-BREF, Social relationships	Very dissatisfied		dissatisfied		Neither satisfied nor dissatisfied		satisfied		Very satisfied		Total		
	N	*N%*	*N*	*N%*	*N*	*N%*	*N*	*N%*	*N*	*N%*	*N*	*M*	*SD*
How satisfied are you with your personal relationships?	20	3.6	28	5.0	117	21.1	215	38.7	175	31.5	555	3.89	1.04
How satisfied are you with your sex life?	45	9.3	21	4.3	94	19.3	169	34.8	157	32.3	486	3.77	1.21
How satisfied are you with the support you get from your friends?	12	2.1	41	7.3	153	27.2	204	36.6	152	27.0	562	3.79	.99

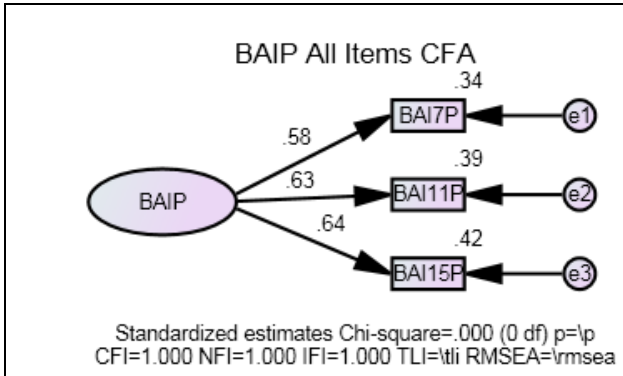
Appendix 5: Initial Confirmatory Factor Analysis

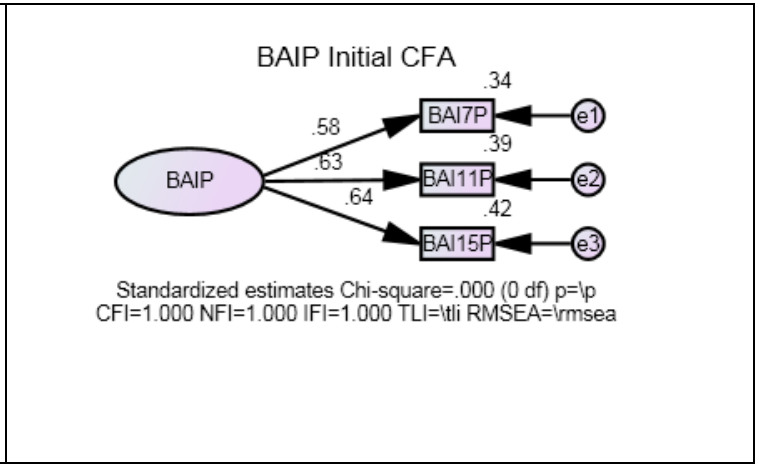


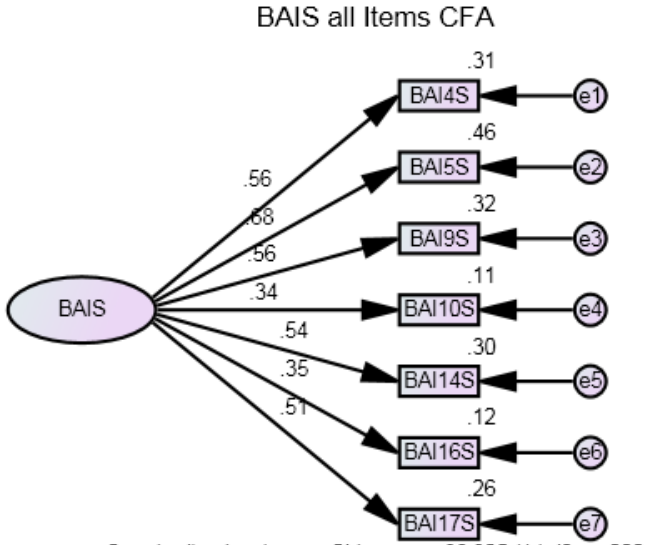


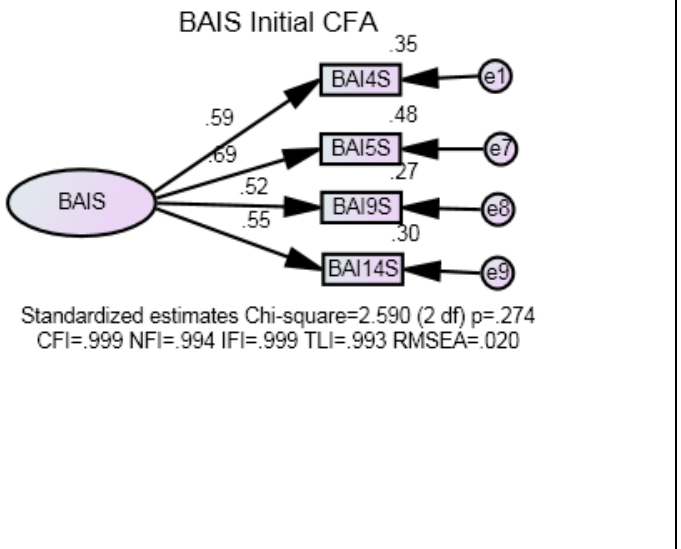

BAIN all Items CFA
BAIN
BAI1N
BAI3N
BAI6N
BAI8N
BAI13N
BAI19N
BAI12N
e1
e2
e3
e4
e5
e6
e7
.21
.44
.32
.20
.27
.11
.44
.46
.66
.56
.44
.52
.32
.66
Standardized estimates Chi-square=72.715 (14 df) p=.000
CFI=.926 NFI=.911 IFI=.927 TLI=.852 RMSEA=.076

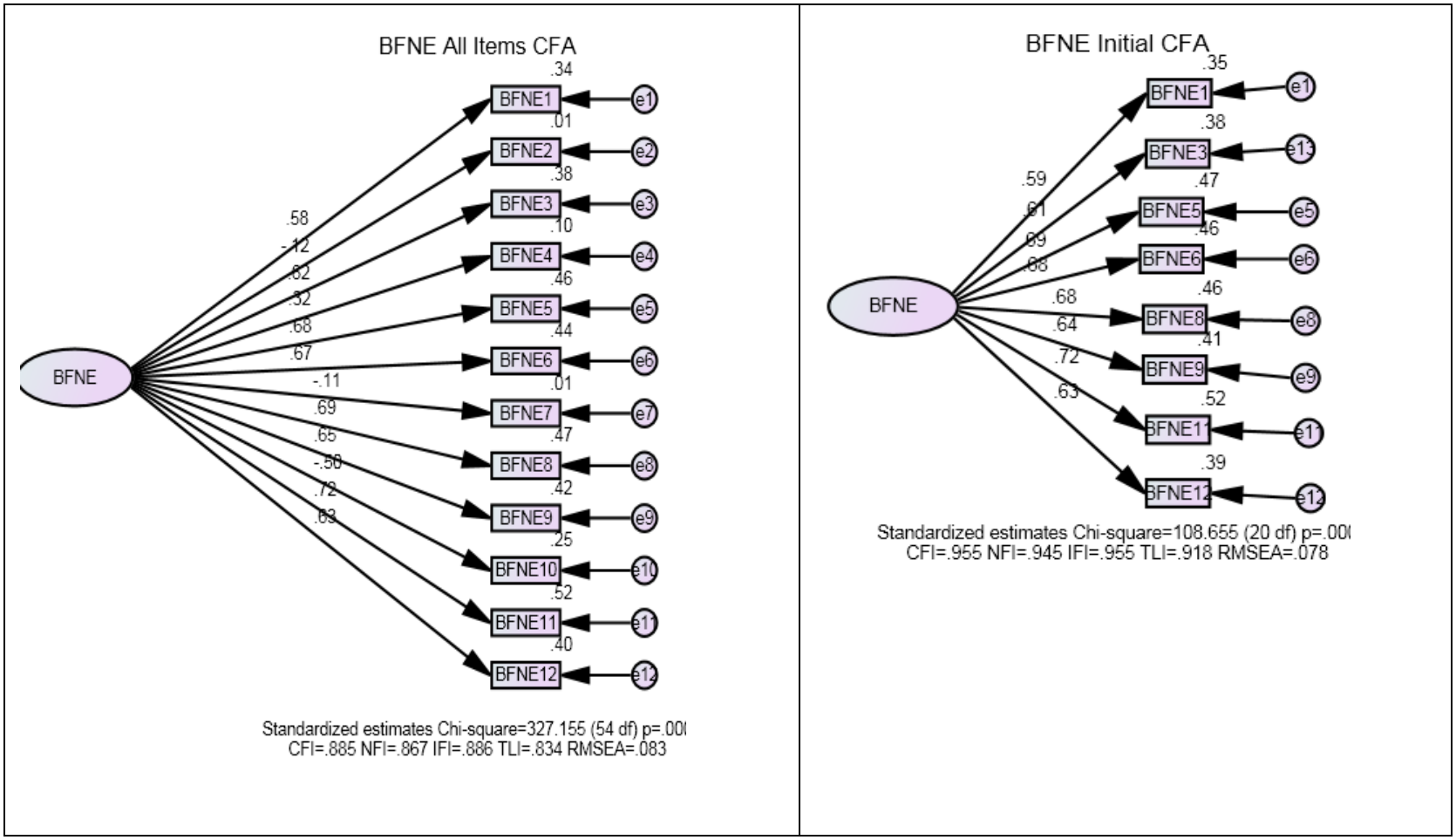

BAIN Initial CFA
BAIN
BAI3N
BAI12N
BAI6N
BAI13N
e2
e3
e6
e7
.49
.50
.24
.23
.70
.71
.49
.48
Standardized estimates Chi-square=8.084 (2 df) p=.018
CFI=.987 NFI=.983 IFI=.987 TLI=.934 RMSEA=.064

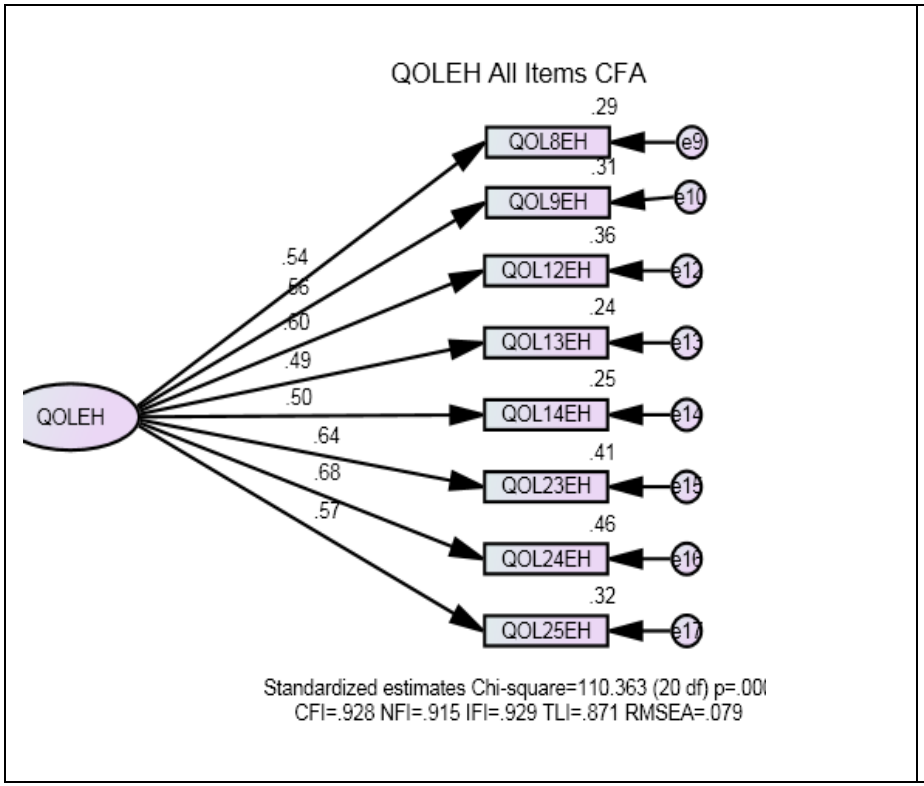

BAIP All Items CFA
BAIP
.58
.63
.64
BAI7P
BAI11P
BAI15P
.34
.39
.42
e1
e2
e3
Standardized estimates Chi-square=.000 (0 df) p=\p
CFI=1.000 NFI=1.000 IFI=1.000 TLI=\tli RMSEA=\rmsea

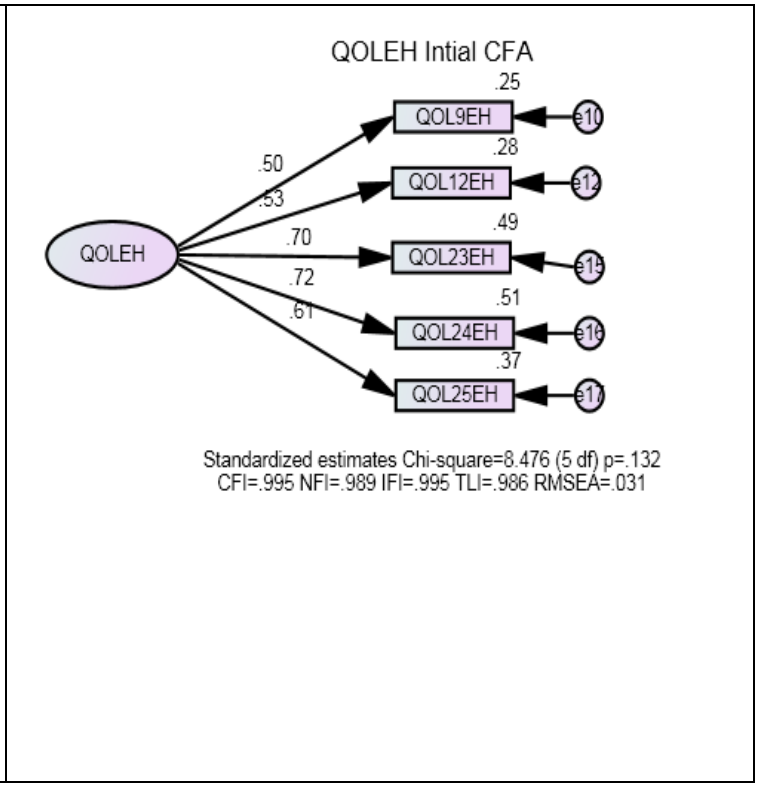

BAIP Initial CFA
BAIP
.58
.63
.64
BAI7P
BAI11P
BAI15P
.34
.39
.42
e1
e2
e3
Standardized estimates Chi-square=.000 (0 df) p=\p
CFI=1.000 NFI=1.000 IFI=1.000 TLI=\tli RMSEA=\rmsea

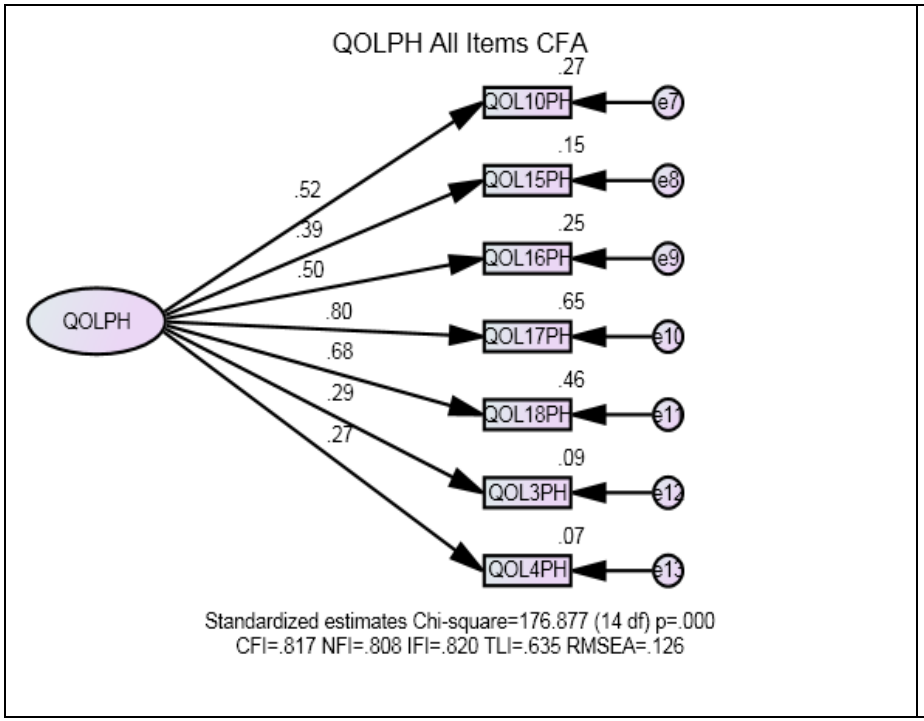

BAIS all Items CFA
BAIS
BAI4S
BAI5S
BAI9S
BAI10S
BAI14S
BAI16S
BAI17S
e1
e2
e3
e4
e5
e6
e7
.31
.46
.32
.11
.30
.12
.26
.56
.68
.56
.34
.54
.35
.51
Standardized estimates Chi-square=86.925 (14 df) p=.000
CFI=.902 NFI=.888 IFI=.904 TLI=.805 RMSEA=.084

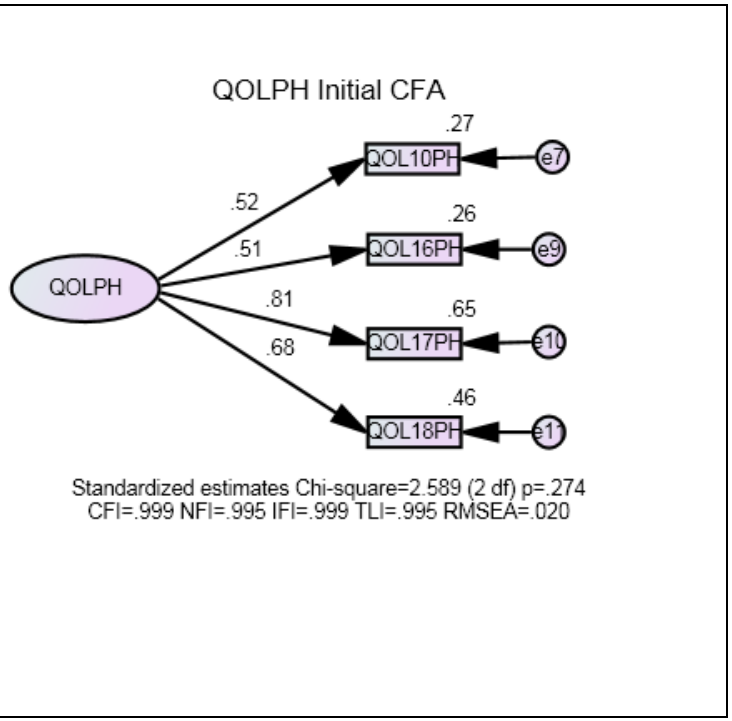

BAIS Initial CFA
BAIS
BAI4S
BAI5S
BAI9S
BAI14S
e1
e7
e8
e9
.35
.48
.27
.30
.59
.69
.52
.55
Standardized estimates Chi-square=2.590 (2 df) p=.274
CFI=.999 NFI=.994 IFI=.999 TLI=.993 RMSEA=.020

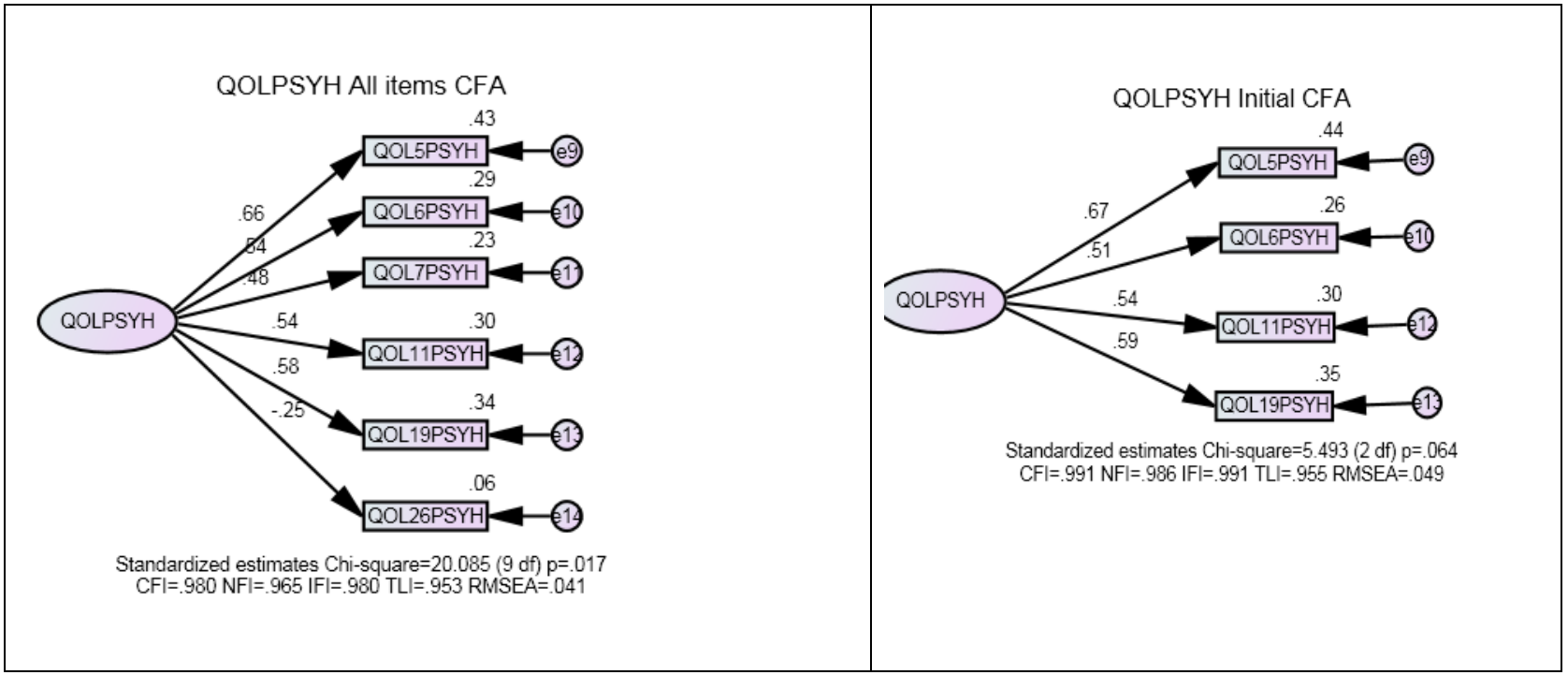

BFNE All Items CFA
BFNE
BFNE1
BFNE2
BFNE3
BFNE4
BFNE5
BFNE6
BFNE7
BFNE8
BFNE9
BFNE10
BFNE11
BFNE12
.34
.01
.38
.10
.46
.44
.01
.47
.42
.25
.52
.40
.58
-.12
.62
.52
.68
.67
-.11
.69
.65
-.56
.72
.63
e1
e2
e3
e4
e5
e6
e7
e8
e9
e10
e11
e12
Standardized estimates Chi-square=327.155 (54 df) p=.00
CFI=.885 NFI=.867 IFI=.886 TLI=.834 RMSEA=.083
BFNE Initial CFA
BFNE
BFNE1
BFNE3
BFNE5
BFNE6
BFNE8
BFNE9
BFNE11
BFNE12
.35
.38
.47
.46
.46
.41
.52
.39
.59
.61
.69
.68
.68
.64
.72
.63
e1
e13
e5
e6
e8
e9
e11
e12
Standardized estimates Chi-square=108.655 (20 df) p=.00
CFI=.955 NFI=.945 IFI=.955 TLI=.918 RMSEA=.078

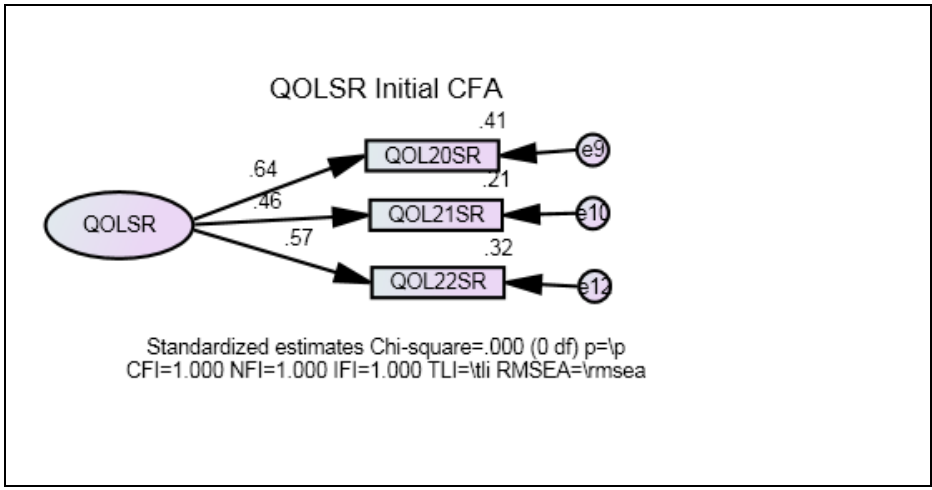

QOLEH All Items CFA
QOLEH
.54
.56
.60
.49
.50
.64
.68
.57
QOL8EH
QOL9EH
QOL12EH
QOL13EH
QOL14EH
QOL23EH
QOL24EH
QOL25EH
.29
.31
.36
.24
.25
.41
.46
.32
e9
e10
e12
e13
e14
e15
e16
e17
Standardized estimates Chi-square=110.363 (20 df) p=.00
CFI=.928 NFI=.915 IFI=.929 TLI=.871 RMSEA=.079

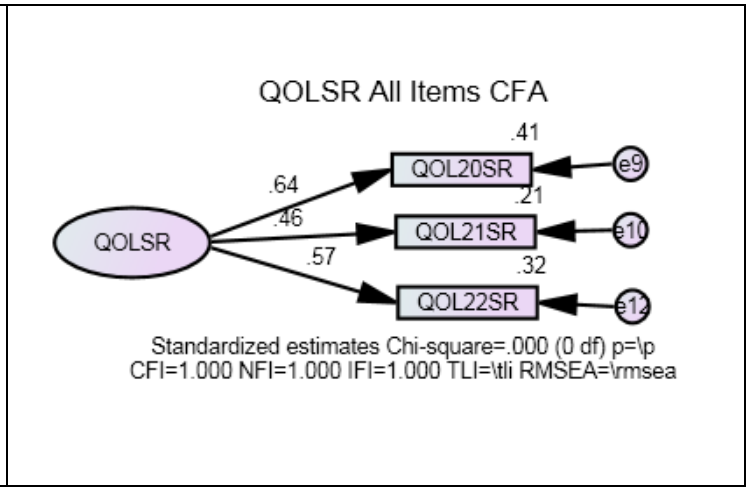

QOLEH Intial CFA
QOLEH
.50
.53
.70
.72
.61
QOL9EH
QOL12EH
QOL23EH
QOL24EH
QOL25EH
.25
.28
.49
.51
.37
e10
e12
e15
e16
e17
Standardized estimates Chi-square=8.476 (5 df) p=.132
CFI=.995 NFI=.989 IFI=.995 TLI=.986 RMSEA=.031

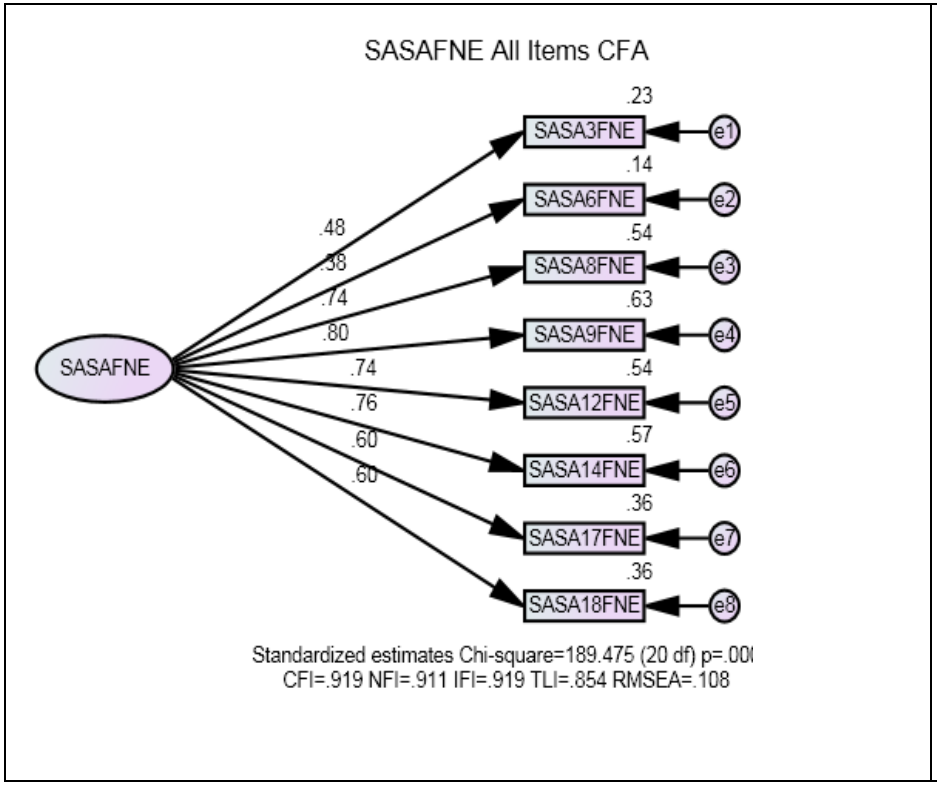

QOLPH All Items CFA
QOLPH
.52
.39
.50
.80
.68
.29
.27
QOL10PH
QOL15PH
QOL16PH
QOL17PH
QOL18PH
QOL3PH
QOL4PH
.27
.15
.25
.65
.46
.09
.07
e7
e8
e9
e10
e11
e12
e13
Standardized estimates Chi-square=176.877 (14 df) p=.000
CFI=.817 NFI=.808 IFI=.820 TLI=.635 RMSEA=.126

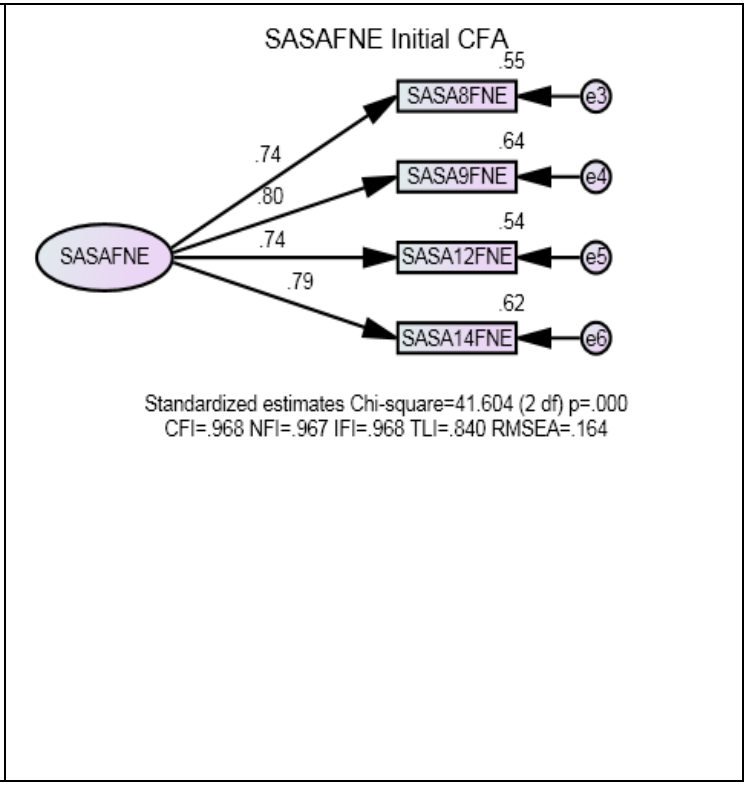

QOLPH Initial CFA
QOLPH
.52
.51
.81
.68
QOL10PH
QOL16PH
QOL17PH
QOL18PH
.27
.26
.65
.46
e7
e9
e10
e11
Standardized estimates Chi-square=2.589 (2 df) p=.274
CFI=.999 NFI=.995 IFI=.999 TLI=.995 RMSEA=.020

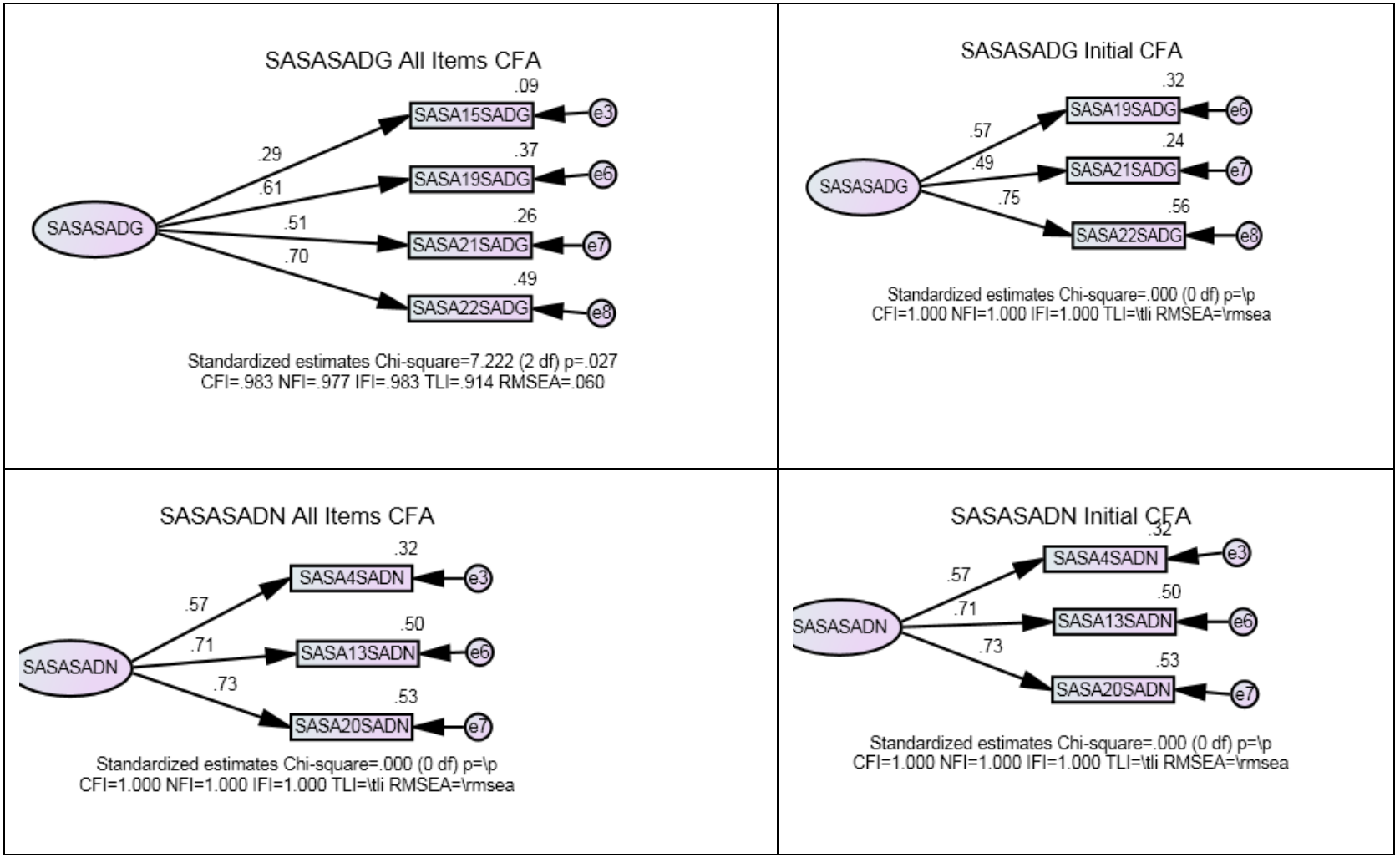

QOLPSYH All items CFA
QOLPSYH
QOL5PSYH
QOL6PSYH
QOL7PSYH
QOL11PSYH
QOL19PSYH
QOL26PSYH
e9
e10
e11
e12
e13
e14
.66
.54
.48
.54
.58
-.25
.43
.29
.23
.30
.34
.06
Standardized estimates Chi-square=20.085 (9 df) p=.017
CFI=.980 NFI=.965 IFI=.980 TLI=.953 RMSEA=.041
QOLPSYH Initial CFA
QOLPSYH
QOL5PSYH
QOL6PSYH
QOL11PSYH
QOL19PSYH
e9
e10
e12
e13
.67
.51
.54
.59
.44
.26
.30
.35
Standardized estimates Chi-square=5.493 (2 df) p=.064
CFI=.991 NFI=.986 IFI=.991 TLI=.955 RMSEA=.049

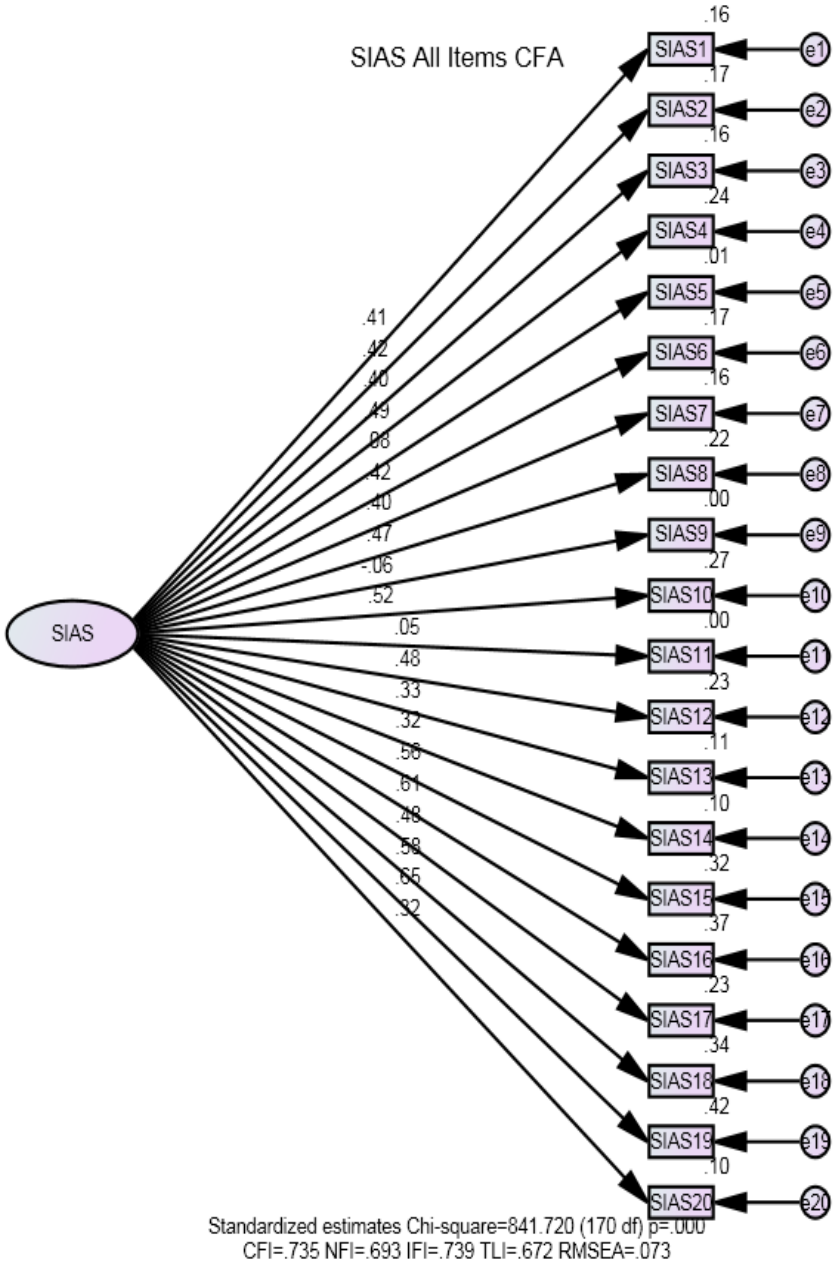

QOLSR Initial CFA
.41
.64
.46
.57
.21
.32
QOLSR
QOL20SR
QOL21SR
QOL22SR
e9
e10
e12
Standardized estimates Chi-square=.000 (0 df) p=\p
CFI=1.000 NFI=1.000 IFI=1.000 TLI=\tli RMSEA=\rmsea

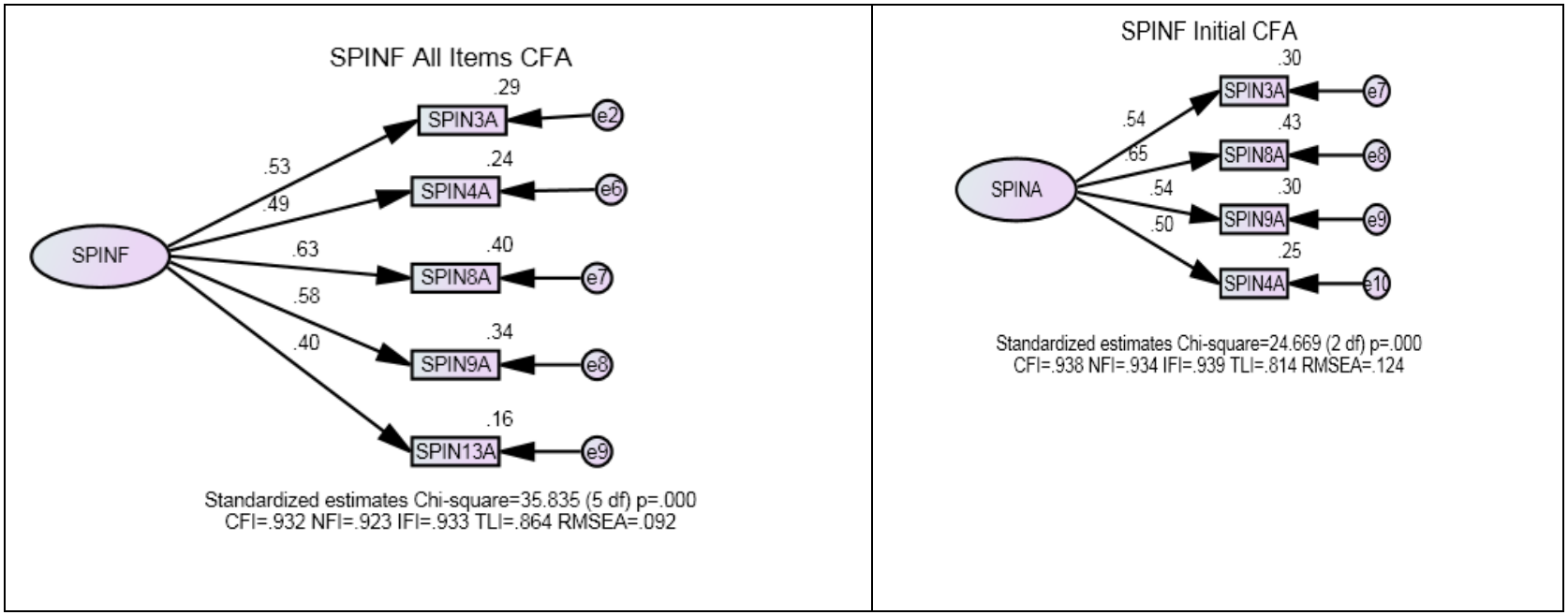

QOLSR All Items CFA
.41
.64
.46
.57
.21
.32
QOLSR
QOL20SR
QOL21SR
QOL22SR
e9
e10
e12
Standardized estimates Chi-square=.000 (0 df) p=\p
CFI=1.000 NFI=1.000 IFI=1.000 TLI=\tli RMSEA=\rmsea

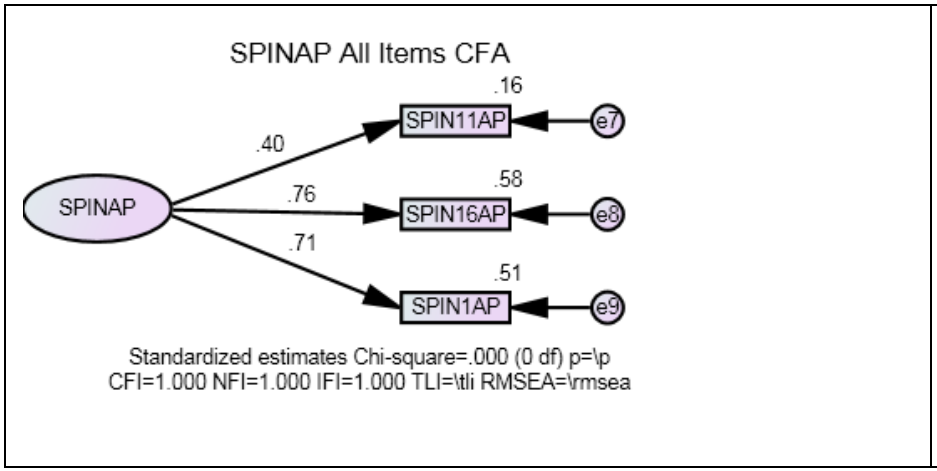

SASAFNE All Items CFA
SASAFNE
.48
.38
.74
.80
.74
.76
.60
.60
SASA3FNE
SASA6FNE
SASA8FNE
SASA9FNE
SASA12FNE
SASA14FNE
SASA17FNE
SASA18FNE
.23
.14
.54
.63
.54
.57
.36
.36
e1
e2
e3
e4
e5
e6
e7
e8
Standardized estimates Chi-square=189.475 (20 df) p=.00
CFI=.919 NFI=.911 IFI=.919 TLI=.854 RMSEA=.108

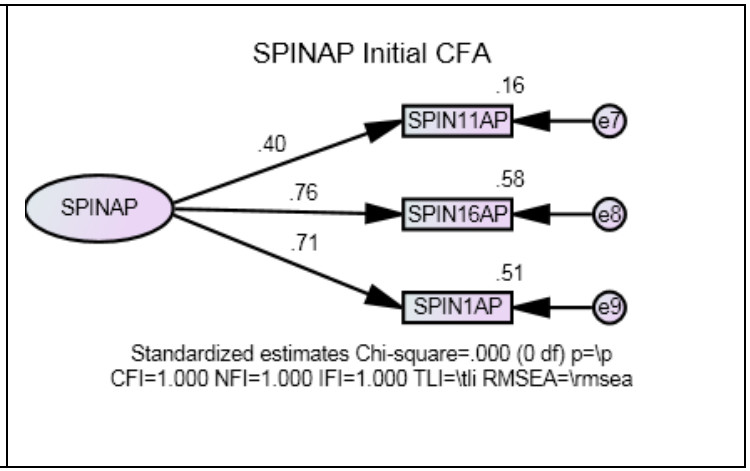

SASAFNE Initial CFA
SASAFNE
.74
.80
.74
.79
SASA8FNE
SASA9FNE
SASA12FNE
SASA14FNE
.55
.64
.54
.62
e3
e4
e5
e6
Standardized estimates Chi-square=41.604 (2 df) p=.000
CFI=.968 NFI=.967 IFI=.968 TLI=.840 RMSEA=.164

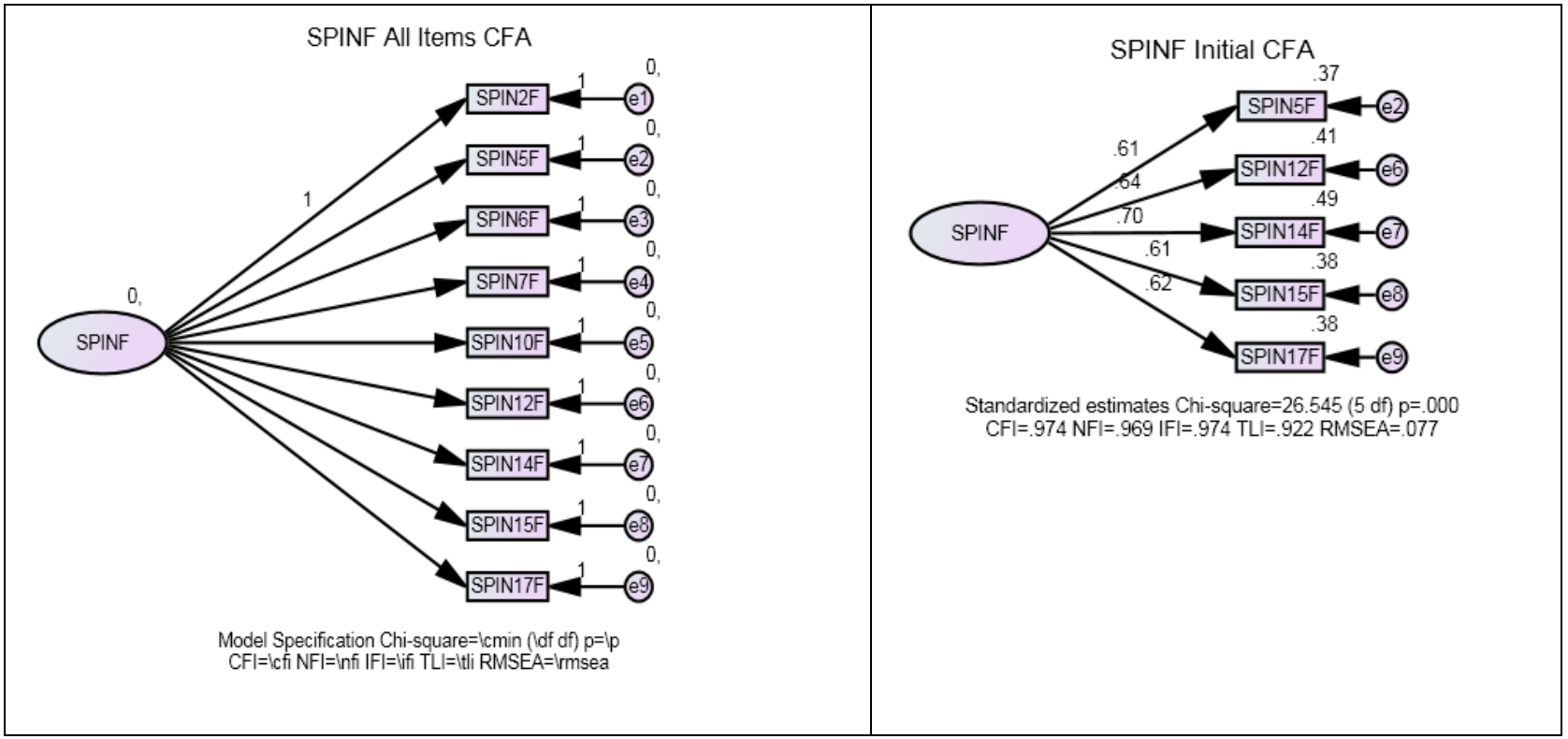

SASASADG All Items CFA
.09
SASA15SADG
e3
.29
.37
SASA19SADG
e6
.61
SASASADG
.51
.26
SASA21SADG
e7
.70
.49
SASA22SADG
e8
Standardized estimates Chi-square=7.222 (2 df) p=.027
CFI=.983 NFI=.977 IFI=.983 TLI=.914 RMSEA=.060
SASASADG Initial CFA
.32
SASA19SADG
e6
.57
.24
.49
SASASADG
SASA21SADG
e7
.75
.56
SASA22SADG
e8
Standardized estimates Chi-square=.000 (0 df) p=\p
CFI=1.000 NFI=1.000 IFI=1.000 TLI=\tli RMSEA=\rmsea
SASASADN All Items CFA
.32
SASA4SADN
e3
.57
.50
.71
SASASADN
SASA13SADN
e6
.73
.53
SASA20SADN
e7
Standardized estimates Chi-square=.000 (0 df) p=\p
CFI=1.000 NFI=1.000 IFI=1.000 TLI=\tli RMSEA=\rmsea
SASASADN Initial CFA
.32
SASA4SADN
e3
.57
.50
.71
SASASADN
SASA13SADN
e6
.73
.53
SASA20SADN
e7
Standardized estimates Chi-square=.000 (0 df) p=\p
CFI=1.000 NFI=1.000 IFI=1.000 TLI=\tli RMSEA=\rmsea

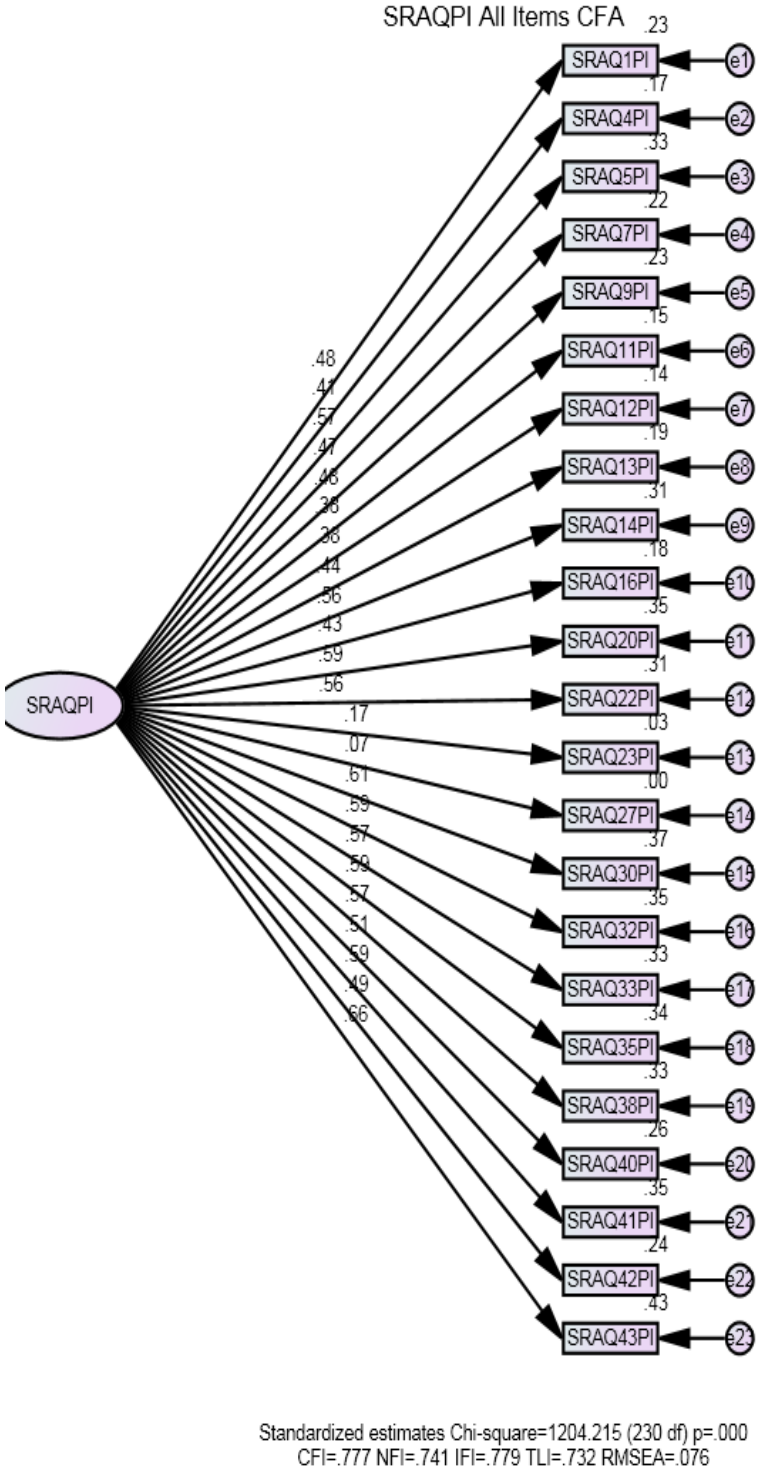

SIAS All Items CFA
SIAS
.41
.42
.40
.49
.08
.42
.40
.47
-.06
.52
.05
.48
.33
.32
.56
.61
.48
.58
.65
.32
SIAS1
SIAS2
SIAS3
SIAS4
SIAS5
SIAS6
SIAS7
SIAS8
SIAS9
SIAS10
SIAS11
SIAS12
SIAS13
SIAS14
SIAS15
SIAS16
SIAS17
SIAS18
SIAS19
SIAS20
.16
.17
.16
.24
.01
.17
.16
.22
.00
.27
.00
.23
.11
.10
.32
.37
.23
.34
.42
.10
e1
e2
e3
e4
e5
e6
e7
e8
e9
e10
e11
e12
e13
e14
e15
e16
e17
e18
e19
e20
Standardized estimates Chi-square=841.720 (170 df) p=.000
CFI=.735 NFI=.693 IFI=.739 TLI=.672 RMSEA=.073


SPINF All Items CFA
SPINF
SPIN3A
SPIN4A
SPIN8A
SPIN9A
SPIN13A
e2
e6
e7
e8
e9
.53
.49
.63
.58
.40
.29
.24
.40
.34
.16
Standardized estimates Chi-square=35.835 (5 df) p=.000
CFI=.932 NFI=.923 IFI=.933 TLI=.864 RMSEA=.092
SPINF Initial CFA
SPINA
SPIN3A
SPIN8A
SPIN9A
SPIN4A
e7
e8
e9
e10
.54
.65
.54
.50
.30
.43
.30
.25
Standardized estimates Chi-square=24.669 (2 df) p=.000
CFI=.938 NFI=.934 IFI=.939 TLI=.814 RMSEA=.124

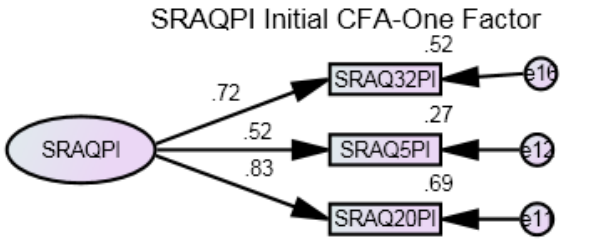

SPINAP All Items CFA
.16
SPIN11AP
e7
.40
.58
SPINAP
.76
SPIN16AP
e8
.71
.51
SPIN1AP
e9
Standardized estimates Chi-square=.000 (0 df) p=\p
CFI=1.000 NFI=1.000 IFI=1.000 TLI=\tli RMSEA=\rmsea

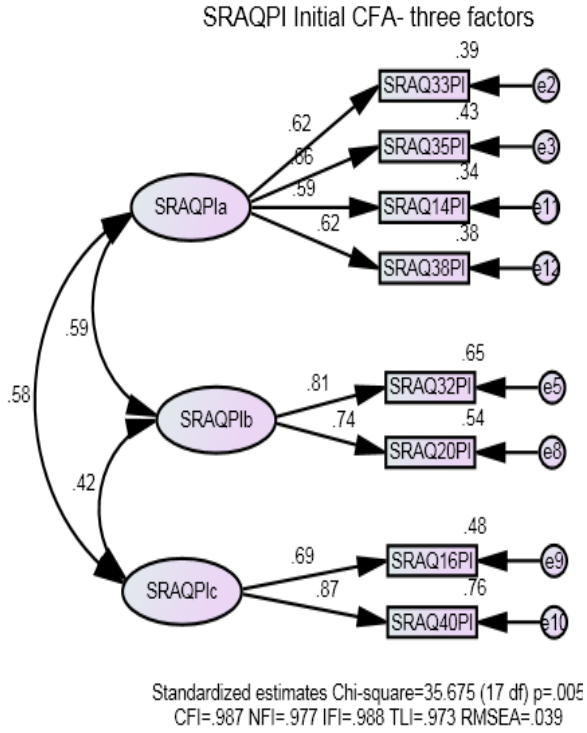

SPINAP Initial CFA
.16
SPIN11AP
e7
.40
.58
SPINAP
.76
SPIN16AP
e8
.71
.51
SPIN1AP
e9
Standardized estimates Chi-square=.000 (0 df) p=\p
CFI=1.000 NFI=1.000 IFI=1.000 TLI=\tli RMSEA=\rmsea

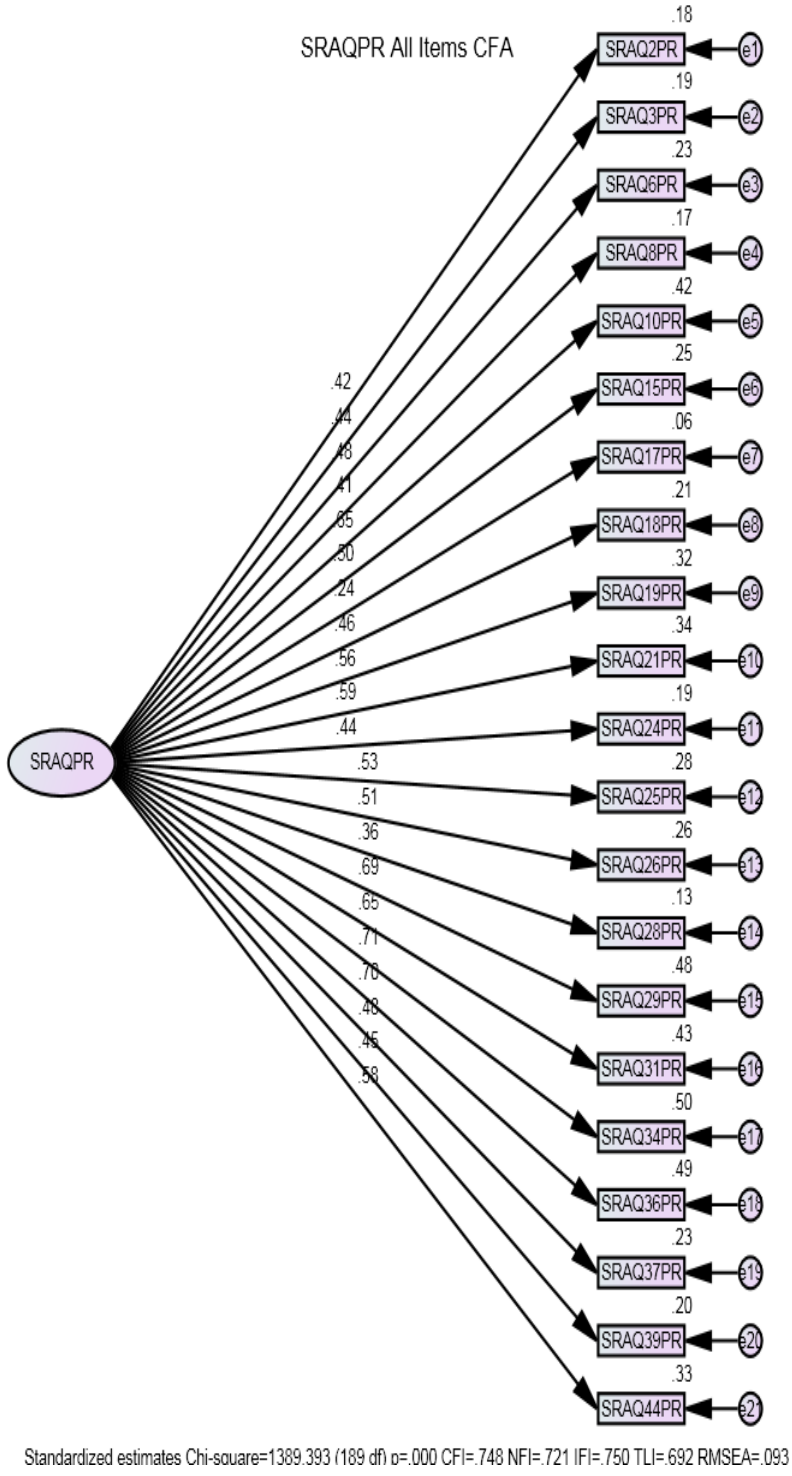

SPINF All Items CFA
SPINF
SPIN2F
SPIN5F
SPIN6F
SPIN7F
SPIN10F
SPIN12F
SPIN14F
SPIN15F
SPIN17F
e1
e2
e3
e4
e5
e6
e7
e8
e9
Model Specification Chi-square=\cmin (\df df) p=\p
CFI=\cfi NFI=\nfi IFI=\ifi TLI=\tli RMSEA=\rmsea
SPINF Initial CFA
SPINF
SPIN5F
SPIN12F
SPIN14F
SPIN15F
SPIN17F
e2
e6
e7
e8
e9
.61
.64
.70
.61
.62
.37
.41
.49
.38
.38
Standardized estimates Chi-square=26.545 (5 df) p=.000
CFI=.974 NFI=.969 IFI=.974 TLI=.922 RMSEA=.077

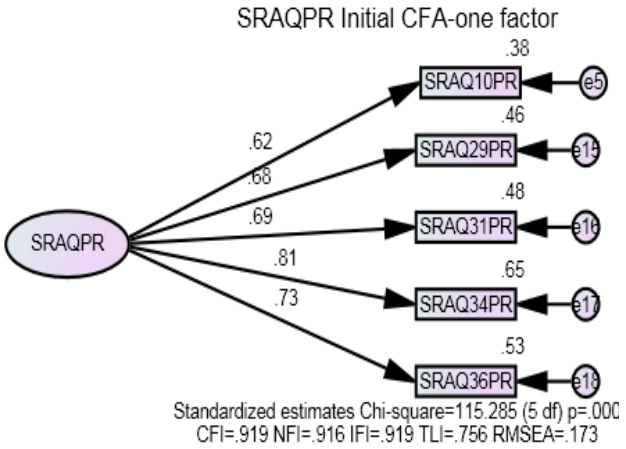


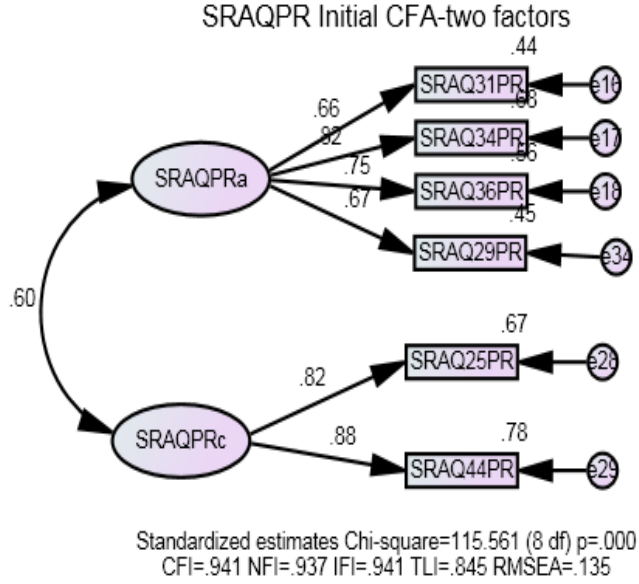
Standardized estimates Chi-square=1204.215 (230 df) p=.000
CFI=.777 NFI=.741 IFI=.779 TLI=.732 RMSEA=.076


SRAQPI Initial CFA-One Factor
SRAQPI
.72
.52
.83
SRAQ32PI
SRAQ5PI
SRAQ20PI
.52
.27
.69
Standardized estimates Chi-square=.000 (0 df) p=\p
CFI=1.000 NFI=1.000 IFI=1.000 TLI=\tli RMSEA=\rmsea


SRAQPI Initial CFA- three factors
SRAQPIa
SRAQPIb
SRAQPIc
.62
.66
.59
.62
.81
.74
.69
.87
.59
.58
.42
SRAQ33PI
SRAQ35PI
SRAQ14PI
SRAQ38PI
SRAQ32PI
SRAQ20PI
SRAQ16PI
SRAQ40PI
.39
.43
.34
.38
.65
.54
.48
.76
Standardized estimates Chi-square=35.675 (17 df) p=.005
CFI=.987 NFI=.977 IFI=.988 TLI=.973 RMSEA=.039

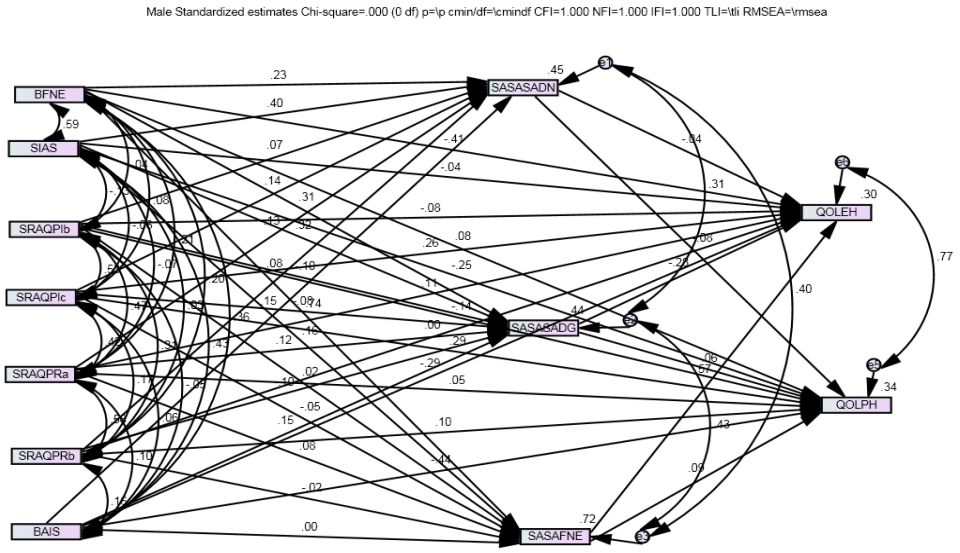

SRAQPR All Items CFA
SRAQPR
.42
.44
.48
.41
.65
.50
.24
.46
.56
.59
.44
.53
.51
.36
.69
.65
.71
.76
.48
.45
.58
SRAQ2PR
SRAQ3PR
SRAQ6PR
SRAQ8PR
SRAQ10PR
SRAQ15PR
SRAQ17PR
SRAQ18PR
SRAQ19PR
SRAQ21PR
SRAQ24PR
SRAQ25PR
SRAQ26PR
SRAQ28PR
SRAQ29PR
SRAQ31PR
SRAQ34PR
SRAQ36PR
SRAQ37PR
SRAQ39PR
SRAQ44PR
.18
.19
.23
.17
.42
.25
.06
.21
.32
.34
.19
.28
.26
.13
.48
.43
.50
.49
.23
.20
.33
e1
e2
e3
e4
e5
e6
e7
e8
e9
e10
e11
e12
e13
e14
e15
e16
e17
e18
e19
e20
e21
Standardized estimates Chi-square=1389.393 (189 df) p=.000 CFI=.748 NFI=.721 IFI=.750 TLI=.692 RMSEA=.093


SRAQPR Initial CFA-one factor
SRAQPR
.62
.68
.69
.81
.73
SRAQ10PR
SRAQ29PR
SRAQ31PR
SRAQ34PR
SRAQ36PR
.38
.46
.48
.65
.53
e5
e15
e16
e17
e18
Standardized estimates Chi-square=115.285 (5 df) p=.000
CFI=.919 NFI=.916 IFI=.919 TLI=.756 RMSEA=.173

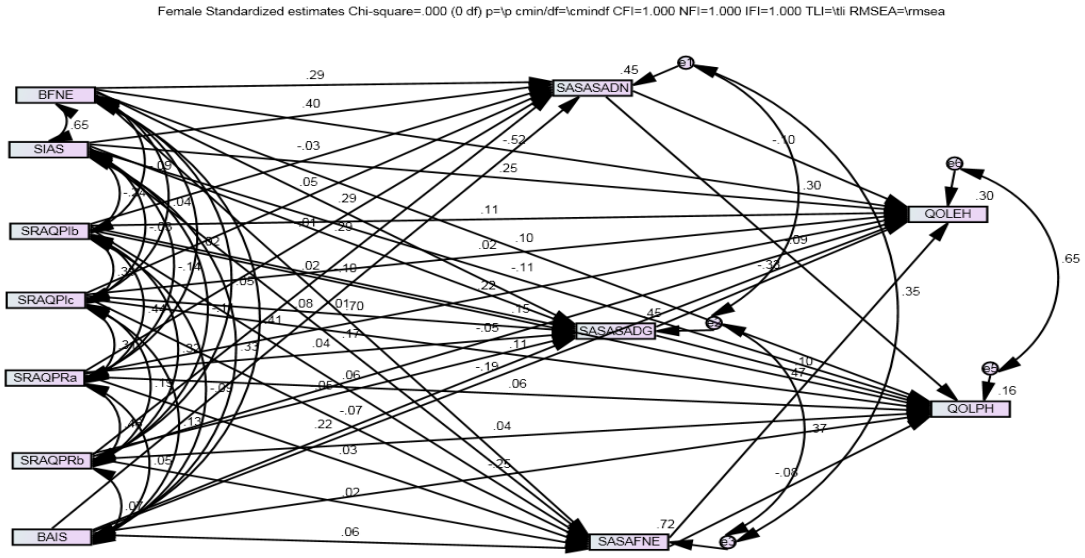

SRAQPR Initial CFA-two factors
SRAQPRa
SRAQPRc
.60
.66
.82
.75
.67
.82
.88
SRAQ31PR
SRAQ34PR
SRAQ36PR
SRAQ29PR
SRAQ25PR
SRAQ44PR
.44
.67
.45
.78
e16
e17
e18
e34
e26
e29
Standardized estimates Chi-square=115.561 (8 df) p=.000
CFI=.941 NFI=.937 IFI=.941 TLI=.845 RMSEA=.135

Appendix 6: Models

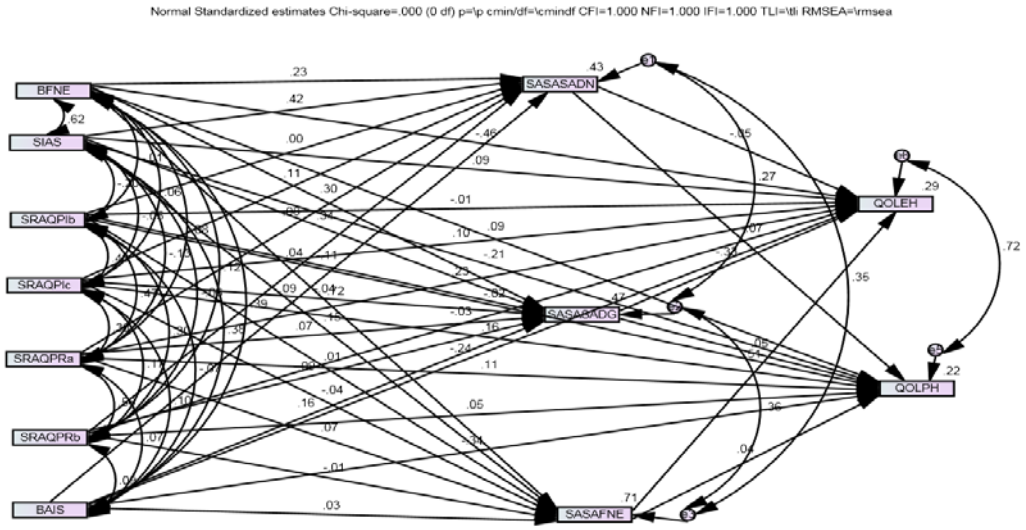
A. Model through Male



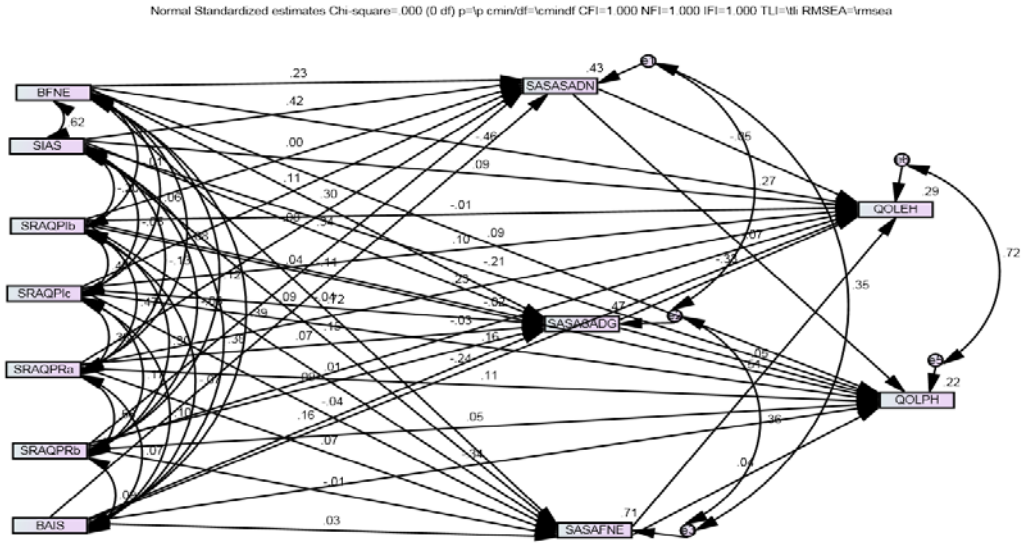
B. Model through Female



C. Model of Community sample



D. Model of Clinical sample



Appendix 7: Letter for seeking ethical approval from the Ministry of Health

University of Bedfordshire

Park Square Luton
Bedfordshire LU1 3JU
United Kingdom
t +44 (0)1234 400400
f +44 (0)1582 743400
www.beds.ac.uk

Dr Hossein Kaviani

SeniorLecturer
Department of Psychology
University of Bedfordshire
Park Square, Luton LU1 3JU
Tel: +44-1582743765

17 May 2012

Dear Dr Muhammad Al-Zahrani
The general supervisor of the Al-Amal Cmplex of Mental Health Dammam, Saudi Arabia

I am writing to you in relation to a research project we are currently conducting in the Department of Psychology, University of Bedfordshire. The project concerns Study of Social Anxiety and Quality of Life in adolescents: Cognitive, social and cultural correlates.

We would like to hear the experiences of adolescents, particularly to explore the reliability and validity of a new, multi-dimensional, scale for measuring social anxiety in Arabic which might have value in both diagnosis and research Arab countries like Saudi Arabia. We would like to evaluate the social anxiety in adolescent of Eastern and Western Societies and how social anxiety could affect quality of life.

The two main researchers in the project will be Saleh Alkhathami and I. Saleh is a PhD student at the University of Bedfordshire and I am a senior lecturer in psychology in the University of Bedfordshire. We both have an interest in Social Anxiety in adolescents and we hope that the finding of the study will contribute towards provision of a series of reliable and valid measurements (social anxiety, quality of life and individualism-relatedness) for using in Arabic speaking countries.

We would like to collect some data from public sample as a part of our study participants. We need a sample of adolescents with social anxiety to complete the attached questionnaires to take part in the study, all questionnaires will be completed anonymously and all information provided will be treated with the strictest confidence by the two researchers. Even if the participants initially accept, you have the right to change your mind and withdraw from the study at any point, if they wish to do so.

Many thanks for your support

Kind Regards,

Dr Hossein Kaviani

Registered Office
Park Square Luton
Bedfordshire LU1 3JU
England

Vice Chancellor

Appendix 8: Letter for seeking ethical approval from the Ministry of Education

University of Bedfordshire

Park Square Luton
Bedfordshire LU1 3JU
United Kingdom
t +44 (0)1234 400400
f +44 (0)1582 743400
www.beds.ac.uk

Dr Hossein Kaviani
SeniorLecturer
Department of Psychology
University of Bedfordshire
Park Square, Luton LU1 3JU
Tel: +44-1582743765

17 May 2012

Dear Dr Abdulrahman Al Muderis
Manager of education in Eastern region in Saudi Arabia

I am writing to you in relation to a research project we are currently conducting in the Department of Psychology, University of Bedfordshire. The project concerns Study of Social Anxiety and Quality of Life in adolescents: Cognitive, social and cultural correlates.

We would like to hear the experiences of adolescents, particularly to explore the reliability and validity of a new, multi-dimensional, scale for measuring social anxiety in Arabic which might have value in both diagnosis and research Arab countries like Saudi Arabia. We would like to evaluate the social anxiety in adolescent of Eastern and Western Societies and how social anxiety could affect quality of life.

The two main researchers in the project will be Saleh Alkhathami and I. Saleh is a PhD student at the University of Bedfordshire and I am a senior lecturer in psychology in the University of Bedfordshire. We both have an interest in Social Anxiety in adolescents and we hope that the finding of the study will contribute towards provision of a series of reliable and valid measurements (social anxiety, quality of life and individualism-relatedness) for using in Arabic speaking countries.

We would like to collect some data from public sample as a part of our study participants. We need a sample of adolescent students to complete the attached questionnaires to take part in the study, all questionnaires will be completed anonymously and all information provided will be treated with the strictest confidence by the two researchers. Even if the participants initially accept, you have the right to change your mind and withdraw from the study at any point, if they wish to do so.

Many thanks for your support

Kind Regards,

Dr Hossein Kaviani

Appendix 9: Ministry of Health Ethics Committee Approval

المملكة العربية السعودية
وزارة الصحة
(٧٠٠٠٨٧٣٣٣٦)
المديرية العامة للشؤون الصحية بالمنطقة الشرقية

الرقم ٤١/ط٧/٨٩٩١٣
التاريخ ٢٢/ ٦/ ٣٠ ١٤هـ
المرفقات

إدارة الصحة العامة
إدارة الخدمات التطويرية (التدريب)

الموضوع / تسهيل مهمة البحث

صالح بن سفير الخثعمي اخصائي علم نفس سعودي

المحترم المكرم /المشرف على برنامج الرعاية النفسية الأولية وخدمة المجتمع بالشرقية
السلام عليكم ورحمة الله وبركاته:-

اشارة الى خطابكم رقم ٤٧٠/ ب/ ٤١ وتاريخ ١٤٣٣/٦/٢٩هـ المبني على الطلب المقدم من الموضح اسمه اعلاه بالموافقة له على البحث الميداني حول ((دراسة في القلق الاجتماعي وجودة الحياة لدى المراهقين : الارتباطات المعرفية والاجتماعية والثقافية)) وذلك لاستكمال حصوله على درجة الدكتوراه في علم النفس والمقدمه لدى جامعة بيدفوردشير – المملكة المتحدة .

نفيدكم بانه لامانع لدينا من تسهيل مهمة الباحث حسب الأنظمة والقوانين المرعية.

ولكم أطيب تحياتي ،،،،

م. المدير العام للصحة العامة بصحة الشرقية

الدكتور/ خالد بن عبدالرحمن التركي

ص/ لإدارة الخدمات التطويرية (قسم التدريب + المرفقات)

مطابع صحة الشرقية ١-١-١

Appendix 10: Research Center for Applied Psychology Ethics Committee Approval

University of Bedfordshire

University Square Luton
Bedfordshire LU1 3JU
United Kingdom
t +44 (0)1234 400400
f +44 (0)1582 743400
www.beds.ac.uk

14 February 2013
To whom it may concern,

This letter is to confirm that Saleh Alkhathami Research project "Study of Social Anxiety and Quality of life in adolescents: Cognitive, social and cultural correlates. " was reviewed and approved by the Research Centre for Applied Psychology Ethics Committee at the University of Bedfordshire on the 10th January 2013 .

Yours sincerely,

Isabella McMurray
Chair Research Centre for Applied Psychology Ethics Committee
Department of Psychology
University of Bedfordshire
Park Square
Luton
LU1 3JU

Registered Office
University Square Luton
Bedfordshire LU1 3JU
England

Vice Chancellor
Bill Rammell

Appendix 11: Minisitry of Education Ethical Committee Approval

المملكة العربية السعودية
وزارة التربية والتعليم
الإدارة العامة للتربية والتعليم بالمنطقة الشرقية
إدارة التخطيط والتطوير

الرقم: ٣٣١١٤٩٢٤٤
التاريخ: ١٤٣٣/٦/٣٠هـ
المشفوعات: مقاييس

إلى: المكرمين مديري/مديرات مكاتب التربية والتعليم بالمنطقة الشرقية حفظهم الله
من: مديرة إدارة التخطيط والتطوير
بشأن: تسهيل مهمة الباحث/ صالح الخثعمي

السلام عليكم ورحمة الله وبركاته ،،،

بناءً على موافقتنا بشأن تسهيل مهمة الباحث/ صالح بن سفير الخثعمي طالب الدراسات العليا لمرحلة الدكتوراه قسم علم النفس جامعة بيدفورتشير بالمملكة المتحدة، والذي يجري دراسة بعنوان (القلق الاجتماعي وجودة الحياة لدى المراهقين: الارتباطات المعرفية والاجتماعية والثقافية) حيث تتطلب الدراسة تطبيق مجموعة من المقاييس والاختبارات النفسية على عينة من طلاب وطالبات المرحلة المتوسطة والثانوية.

عليه فلا مانع من تسهيل مهمته.

شاكرين ومقدرين لكم تعاونكم.

والسلام عليكم ورحمة الله وبركاته ،،،

نوال بنت عبدالرحمن التيسان

ص/ لقسم البحوث والمشروعات
م/الشامسي
٦/٣٠

dpd@girlseduep.gov.sa ٨٢٦٩٣٦١ فاكس ٨٢٦٤٩٧٧
زوروا موقعنا على الإنترنت www.girlseduep.gov.sa